SHREVEPORT REGIONAL AIRPORT

ENVIRONMENTAL ASSESSMENT

January 2025

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Kutchins & Groh
consulting associates for airports

KSA

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1. Introduction

1.1 Overview

The Shreveport Airport Authority (SAA, Authority, or Sponsor) is proposing to replace the existing Airport Traffic Control Tower (ATCT) at Shreveport Regional Airport (SHV). The Infrastructure Investment and Jobs Act (IIJA; Public Law [P.L] 117-58), enacted on November 15, 2021, also known as the Bipartisan Infrastructure Law (BIL), appropriated $25 billion (B) over a five-year period (Fiscal Year 2022 [FY22] to 2026 [FY26]) for National Airspace (NAS) improvements, which includes airport traffic control and other airport infrastructure projects. The National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [U.S.C.] § 4321 et seq.) requires that a statement of environmental impacts be prepared as part of the development process for projects requiring a federal action, such as funding, approving, or permitting.

The FAA prepared a Final PEA for the BIL ATCT Replacement Program in accordance with NEPA; the White House Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508); FAA Order 1050.1F, Environmental Impacts: Policies and Procedures; and other applicable federal laws and regulations. The BIL ATCT Final PEA provided sufficient evidence and analysis for a Finding of No Significant Impact (FONSI) / Record of Decision (ROD) determination.

This ATCT EA for SHV tiers from the BIL ATCT Final PEA to evaluate the existing environment and analyze the anticipated environmental consequences of the proposed alternatives at a site-specific level through the framework established by the BIL ATCT Final PEA and Finding of No Significant Impact / Record of Decision (FONSI/ROD)

1.2 Proposed Action

The Sponsor's Proposed Action is to replace the existing sponsor-owned ATCT with a modern, sustainable ATCT facility at SHV. The Proposed Action is anticipated to include the following activities:

- Federal Aviation Administration approval of the Airport Layout Plan at SHV.
- Federal Aviation Administration funding associated with the Proposed Action.
- Construction and operation of a replacement ATCT, an administrative base building, and other associated facility support features such as a parking area and security fences.
- Extension and/or relocation of access roads and utilities to the replacement ATCT.
- Installation of modern air traffic control electronic equipment in the replacement ATCT.
- Commissioning of the replacement ATCT, cutover of air traffic services to the replacement ATCT, and decommissioning of the existing ATCT.
- Demolition and disposal of the existing ATCT facility and associated infrastructure.
- Modification and/or relocation of existing infrastructure necessary to enable project implementation.

The proposed timeframe to replace the ATCT is five years from construction and electronics installation, and air traffic services cutover to demolition of the existing ATCT.

To address major changes to the Airport and the aviation industry that have occurred since the previous Master Plan was completed, the Airport initiated a Master Plan Update in 2017, which was approved in June 2019. The primary objective of the Master Plan Update was to develop a general guide for the orderly, timely, and logical development of SHV so that it can continue to serve the aviation needs and support the economic development of the Shreveport region for the next 20 years.

The Master Plan included the preparation of a forecast of aviation activity, which was then transitioned into facility requirements that enabled the Airport to meet that forecast. Various alternatives were analyzed to implement each improvement project, to determine the optimum alternative for each, and to assign implementation timeframes for them. The specific improvement projects were then incorporated into a Preferred Development Plan, which further defined the projects to be implemented over a five-year planning horizon.

The airport planning process determined that these improvement projects are vital for the Airport to continue to operate as a safe and efficient facility and to sustain its current role.

The planning effort was also an opportunity to evaluate the airside and landside areas to ensure that they are being developed efficiently and to meet the forecasted aviation demand. The ultimate recommendations in the Master Plan Update reflect the best options for developing the improvements within the existing Airport boundaries. The basis for the airport planning safety and operational compliance standards are described in FAA Advisory Circular (AC) 150/5300-13B, Airport Design Manual (FAA 2022).

The Shreveport Regional Airport has developed a Master Plan that charts the future growth of the airport and identifies critical infrastructure needs. The identified development plan requires the relocation of the ATCT in order to redevelop the terminal area. As part of its planning, the airport proposes to relocate and construct a new FAA Airport Traffic Control Tower (ATCT) Facility. Concurrently, as a part of the NEPA process, this project is being coordinated with the US Army Corps of Engineers, Vicksburg District, for Section 404/Section 10 of the Clean Water Act.

After a comprehensive analysis of three locations and the completion of the FAA Airport Traffic Control Tower Siting Report, the preferred alternative is Site 3A as depicted in **Exhibit 1.1: Proposed Action**.

SHREVEPORT REGIONAL AIRPORT
ENVIRONMENTAL ASSESSMENT

[DRAFT]

PREPARED BY: NEWHOUSE AND ASSOCIATES, *JULY 2024*
SOURCE: NEWHOUSE AND ASSOCIATES

SHREVEPORT REGIONAL AIRPORT

EXHIBIT 1.1
PROPOSED ACTION

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newhouse associates

1.3 Background

1.3.1 AIRPORT INFORMATION

Shreveport Regional Airport is located approximately 4 miles southwest of Downtown Shreveport. The city of Shreveport is located in Caddo Parish in Northwest Louisiana. SHV is a Publicly Owned and Public-Use airport and is designated as a Commercial Service/Primary, non-hub airport according to the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems 2023-2027 (NPIAS). The Airport maintains two active runways, an extensive taxiway system with 11 taxiways, and an airfield system comprised of associated aprons, hold pads and electronic and visual navigational aids.

1.3.2 EXISTING AIRPORT TRAFFIC CONTROL TOWER INFORMATION

Commissioned in 1975, the existing SHV ATCT is a non-standard tower and has a Facility Level of 4[1]. The existing SHV tower is located on the Northeast end of Taxiway A1 and between Terminal Gates 5 and 9C. The tower has a cab size of approximately 450 square feet with a cab floor height of 59 feet above ground level (AGL).

[1] FAA ATCT Level 4 refers to a classification within the Federal Aviation Administration (FAA) for Airport Traffic Control Towers (ATCT). The FAA categorizes ATCTs based on factors such as traffic volume, complexity, and other considerations.

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[DRAFT]

PREPARED BY: NEWHOUSE AND ASSOCIATES, *JULY 2024*
SOURCE: NEWHOUSE AND ASSOCIATES

EXHIBIT 1.2
AIRPORT LOCATION

0 1,500

2. Purpose and Need

2.1 Introduction

The purpose of this Environmental Assessment (EA) which is tiered off of the Programmatic Environmental Assessment for Airport Traffic Control Tower Replacement Program is to assess the potential environmental impacts of the Proposed Action for Shreveport Regional Airport (herein referred to as "SHV" or "Airport").

This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, the U.S. Department of Transportation, Federal Aviation Administration (FAA) Airport Environmental Handbook Order 5050.4B, National Environmental Policy Act Implementing Instructions for Airport Actions, (April 28, 2006), FAA Environmental Impacts: Policies and Procedures Order 1050.1F (July 16, 2015) and FAA Airports 1050.1 Desk Reference (October 2023). The FAA serves as the lead federal agency for this NEPA evaluation. This EA is tiered from the FAA's Programmatic EA for the Airport Traffic Control Tower Replacement Program, September 21, 2023.

The objectives of this section are to define the purpose and need of the proposed action, where 'need' is defined as the problem facing the Shreveport Regional Airport Authority and 'purpose' is defined as the solution to the problem. This section will also identify the federal actions required and outline the timeframe in which the proposed actions discussed in this EA will take place.

2.2 Purpose of the Proposed Action

The Proposed Action at this airport would provide for a modern, operationally efficient ATCT that would meet all applicable FAA requirements while maintaining uninterrupted air traffic control services. This replacement ATCT would enable the installation of modern and required air traffic control equipment, provide adequate space and an enhanced work environment for FAA personnel, lower operating costs, and improve environmental

performance, resulting in energy savings, water efficiency, reduced carbon emissions, and improved indoor air quality.

The secondary purpose of the proposed Airport Traffic Control Tower relocation is to allow the airport to meet future regional travel demand through needed capacity improvements at the Shreveport Regional Airport terminal. The proposed action offers an opportunity to plan for future growth and/or expansion of terminal facilities by relocating the existing control tower. Although in 1998 and 1999 the existing concourses were renovated and connected to a new main terminal building, the two concourse H configuration, with the control tower inside, dates to its 1960 design. These facilities are incredibly inefficient today and do not provide any flexibility to modify or expand gates or fully utilize the capability of the facility to provide reliable and competitive passenger service. The most recent Airport Master Plan forecasts the 10-year Compound Annual Growth Rate of 1.51% and 346,969 enplaned passengers for 2037 for SHV. It is expected that operations at SHV will be reduced over the next 15 years, as larger aircraft replace 50-seat regional jets. Seat capacity is forecasted to grow moderately over the next 20 years, with higher passenger loads on larger jets and higher load factors. Renovation of the existing tower will not satisfy the purpose and need of the Proposed Action. Relocating the control tower will improve the efficiency of the airport's facilities by:

- Eliminating multiple blind spots created by line-of-sight issues on the east side of SHV
- Creating an opportunity to expand existing gate footprints and/or add more gates for future growth
- Allowing for the expansion of terminal concourses to meet the needs of today's travelers
- Allowing for additional commercial development near existing air cargo east/GA parking aprons for uses such as aerospace maintenance hangars or aircraft storage hangars
- Improving utilization of existing terminal area space

In addition, the project will:

- Improve overall visibility throughout the airfield
- Address the needs of an outdated ATCT facility
- Improve life-safety deficiencies identified with the existing tower
- Improve accessibility issues with the existing tower

2.3 Need for the Proposed Action

The FAA recognizes the need to provide continual air traffic control services at SHV. The existing SHV ATCT does not have the ability to accommodate upgrades to the latest air traffic control technologies, lacks the personnel space requirements and modern amenities, and may have physical problems such as maintenance-intensive deficient mechanical appurtenances (e.g., heating and ventilation, plumbing).

This project will replace existing physical infrastructure at or near the end of its useful life. The current ATCT facility was built in the 1970's. On July 12, 2016, the FAA Infrastructure Engineering, Fort Worth Center, conducted an analysis of the existing tower's fire safety systems and conditions at SHV and found deficiencies estimated at nearly $300,000. This is in addition to other operational, safety and efficiency concerns that, when combined with the impediments to airport planning, creates the need to relocate this facility as soon as possible. Improvements made to replace aging and inadequate infrastructure would ensure uninterrupted air traffic control services to maintain the safety of the National Airspace System.

The Airport has spent nearly $100,000 in recent years to make improvements to the tower, including a new roof structure on the tower cab and an administrative/equipment building, along with HVAC upgrades. However, serious concerns not addressed in the FAA engineering report were also noted in the airport report which include:

- Structural deterioration resulting in multiple areas of the staircase system pulling away from the walls. Repairing this issue will require removal of the existing staircase system, repairs to the walls and other work.
- Aging bathrooms in need of renovations.
- Antiquated elevator system in need of upgrading.

This project will improve airfield facilities and safety so that the Shreveport Regional Airport may continue to serve as a regionally competitive, origin-destination airport for passenger aircraft operations.

The need for the proposed relocation of the existing Airport Traffic Control Tower is also based on the limitations and vulnerabilities of the terminal layout at SHV. Without this project, the airport has few options to address the growing travel needs for this region. The layout of existing passenger facilities has inherent problems that cannot be addressed until the control tower is relocated. Specifically, these facilities are incredibly inefficient today and do not provide any flexibility to modify or expand gates or fully utilize the capability of the facility to provide reliable and competitive passenger service. Since the existing terminal and air traffic

facilities were built in the early 1970s, the needs and use of the airport have shifted, resulting in a very inefficient and costly operation.

Without the improvements that this project enables, including reconfiguration of the terminal complex, the situation will worsen as these facilities continue to deteriorate and require significantly more investment to repair and maintain.

A highly inefficient terminal facility with increasing costs to maintain and operate is rapidly driving the need for improvements that would require the relocation of the existing control tower facility.

2.4 Proposed Action

The purpose of the proposed Air Traffic Control Tower relocation is to meet future regional travel demand through needed capacity improvements at Shreveport Regional Airport. This project will replace existing physical infrastructure at or near the end of its useful life.

This project will improve airfield facilities and safety so that the Shreveport Regional Airport may continue to serve as a regionally competitive, origin-destination airport for passenger aircraft operations.

3. Alternatives

In compliance with FAA Order 6480.4B, Airport Traffic Control Tower Siting Process, the FAA adheres to a siting process to determine the single-most technically feasible site for the establishment or replacement of an ATCT facility (FAA, 2018). This siting process takes into consideration multiple technical criteria, as prescribed in Order 6480.4B.

Representatives from the FAA and SHV conducted siting for this project in conjunction with the FAA's Virtual Immersive Siting Tower Assessment (VISTA).

This tiered EA evaluates the selected site alternative (as determined by the ATCT siting process) and no action alternative for the proposed replacement of the SHV ATCT. Other alternatives which were considered in the siting report were not carried forward as they did not meet the technical siting criteria as outlined in FAA Order 6480.4B. Figure 3-1 provides an aerial image of the proposed project site and study area considered within this EA.

SHREVEPORT REGIONAL AIRPORT

[DRAFT]

PREPARED BY: NEWHOUSE AND ASSOCIATES, *JULY 2024*
SOURCE: NEWHOUSE AND ASSOCIATES

EXHIBIT 3.1
PROPOSED PROJECT SITE AND STUDY AREA

0 200

3.1 Alternative 1: Proposed Action (Preferred Alternative)

The Proposed Action, the location of which was determined by the siting process described in Order 6480.4B: Airport Traffic Control Tower Siting Process, consists of a site which is 4050 ft south of the existing ATCT. This site also provides excellent visibility for runways 6-24 and 14-32 including the future extension of 500 ft. However, the existing ground elevation at this site requires the tower facility to be an additional minimum of 13 ft. taller than tower at site 2A. The site is accessible from the West via state highway 3132 & 701n street interchange. An access road and all required utilities to the future ATCT site can be projected due East from the North South Road on the West loop road.

Alternative 1 - Proposed Action (Site 3A)
Latitude: N 32° 26' 32.39"
Longitude: W 93° 49' 47.52"
Site Elevation: 229 FT AMSL
Cab Eye Level: 93 FT AGL, 317 AMSL
Overall Structure Height: 128 FT AGL, 352 FT AMSL
Proposed size of parcel 500' x 500', 5. 7 4 acres

3.2 Alternative 2: No Action

A No Action Alternative is required to be included in this EA in accordance with the CEQ's NEPA implementing regulations (40 CFR § 1508.14(c)). The No Action Alternative is defined as maintaining the status quo (baseline conditions) without federal agency involvement. The No Action Alternative is used to evaluate the effects of not replacing the ATCT and provides a benchmark against which other alternatives may be evaluated. Therefore, for purposes of comparative analysis in this EA, the No Action Alternative represents the conditions that would be anticipated if Alternative 1 (Proposed Action) were not implemented.

4. Affected Environment and Environmental Consequences

This Section provides documentation of existing environmental resource conditions or the affected environment at SHV and surrounding areas. This section also analyzes the anticipated environmental consequences from each alternative for each resource category.

As detailed in the Bipartisan Infrastructure Law (BIL) Airport Traffic Control Tower (ATCT) Programmatic Environmental Assessment (PEA) and Finding of No Significant Impact/ Record of Decision (FONSI/ROD) 2023, the FAA identified and analyzed potential environmental impacts for the broad scope of actions planned for ATCT replacement activities. This programmatic approach allows the FAA to review project-specific details and potential impacts during the planning and site selection process for those ATCT projects within the scope of the PEA analysis.

4.1 Resource Categories Previously Cleared by BIL ATCT Final PEA

The BIL ATCT Final PEA and FONSI/ROD identified several resource categories as having "no significant impact" (FAA, 2023). The following resource categories were reviewed for project specific impacts and were determined to be consistent with the PEA in that no significant impacts are anticipated.

☑ Air Quality
☑ Climate
☑ Farmlands
☒ Hazardous Materials, Solid Waste, and Pollution Prevention
☑ Land Use
☑ Natural Resources and Energy Supply
☑ Noise
☑ Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

The resource categories above were programmatically cleared in the BIL ATCT PEA and FONSI/ROD.

4.2 Resource Categories Requiring Site-Specific Analysis Per the BIL ATCT Final PEA

The BIL ATCT Final PEA also identified resource categories that were unlikely to be significantly impacted but would require a site-specific analysis (FAA, 2023). In accordance with the BIL ATCT Final PEA, this EA reviews the following resource categories:

- Biological Resources – This EA includes a description of the existing environment and potential environmental consequences for biological resources (see Section 4.2.1).
- Coastal Resources – This EA includes a description of the existing environment and potential environmental consequences for coastal resources regulated by the National Oceanic and Atmospheric Administration (NOAA) under the Coastal Zone Management Act (CZMA) (16 U.S.C. §§ 1451 et seq.) (see Section 4.2.2).
- DOT Act, Section 4(f) – This EA includes a description of the existing environment and potential environmental consequences for Section 4(f) properties on or near the Shreveport Regional Airport (see Section 4.2.3).
- Historical Architectural, Archeological, and Cultural Resources – This EA includes a description of the existing environment and potential environmental consequences for historic and cultural resources (see Section 4.2.4).
- Visual Effects – This EA includes a description of the existing environment and potential environmental consequences for visual effects (see Section 4.2.5).
- Water Resources – This EA includes a description of the existing environment and potential environmental consequences for water resources (see Section 4.2.6).

Regulatory requirements for these resource categories can be reviewed in more detail in the BIL ATCT PEA.

4.2.1 BIOLOGICAL RESOURCES (INCLUDING FISH, WILDLIFE, AND PLANTS)

Biotic Communities

The long-term loss of wildlife habitat is addressed by the Fish and Wildlife Coordination Act (16 U.S.C. 661). Coordination with appropriate agencies is required if a proposed action has the potential to affect or eliminate potential wildlife habitat.

The United States Fish and Wildlife Service, the State of Louisiana Department of Wildlife and Fisheries, and the Louisiana Department of Agriculture and Forestry were contacted to

determine if biotic communities in the Airport environs would be adversely affected by the implementation of the proposed action.

The Louisiana Department of Wildlife and Fisheries was the only agency to respond with specific concerns on June 4, 2024. The email states that for Ecological Studies there are no objections to the project. LDWF also searched the Wildlife Diversity Program database and determined that the southern crawfish frog (Lithobates areolatus areolatus) may occur within the project area. Habitat for the frog includes open, upland habitats with vernal pools. No vernal pools or southern crawfish frogs were observed within the project area during any of the field investigations. If any southern crawfish frogs are encountered during the project, LDWF will be contacted.

The biotic communities present are a mowed, maintained open community and an upland forested community. Both habitats do provide habitat for mammals, reptiles and amphibians, and birds indigenous to the area. The habitat will be impacted if the Proposed Action is built; however, neither of these habitats is unique or rare. Under the No Action alternative, no significant effects are anticipated.

SHREVEPORT REGIONAL AIRPORT

[DRAFT]

PREPARED BY: NEWHOUSE AND ASSOCIATES, *JULY 2024*
SOURCE: NEWHOUSE AND ASSOCIATES

EXHIBIT 4.1
BIOLOGICAL RESOURCES

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Threatened and Endangered Species of Flora and Fauna

The term "endangered species" refers to any member of the animal kingdom (mammal, fish, or bird) or plant kingdom (seeds, roots, etc.) that is in danger of extinction throughout all or a portion of its range. The term "threatened species" refers to those members of the animal or plant kingdom that are likely to become endangered within the foreseeable future.

Endangered and threatened species are identified and protected by the Endangered Species Act of 1973, as amended in 1978, 1982, 1988 and 2004. Section 7 of the Endangered Species Act requires that all Federal agencies consult with the U.S. Fish and Wildlife Service regarding any Federal action that may affect a federally listed species. This requirement applies to all Federal land management decisions and actions. Such consultations often require preparation of a biological evaluation or assessment by the Federal action agency. (ESA, 1973).

Federal, State, and local agencies were contacted to determine if endangered species in the proposed project would be adversely affected by the implementation of the proposed action. A consistency letter with the determination of "No effect" was received from the U.S. Fish and Wildlife Service regarding the federally-listed endangered red-cockaded woodpecker (*Picoides borealis*). A habitat suitability survey was conducted for the preferred alternative to determine if suitable habitat for federally listed threatened or endangered species, species proposed for federal listing, and candidate species for listing. The Threatened and Endangered Species Assessment is attached as **Appendix A: Threatened and Endangered Assessment.** The assessment determined there would be no impacts to threatened or endangered species due to the proposed project.

4.2.1.1 Affected Environment

Vegetation

The study area is a mix of a mowed maintained area, a gravel road and pad, and upland forest, as shown in Exhibit 4-1. The vegetation found within the proposed construction area of the proposed ATCT site is bahia grass (*Paspalum notatum*), bermudagrass (*Cynodon* dactylon), and false garlic (*Nothoscordum bivalve*). A road and gravel pad are also located within the construction area.

Vegetation within the tree clearing area includes water oak (*Quercus nigra*) trees and saplings, hickory (*Carya* sp.) trees, and eastern hophornbeam (*Ostrya virginiana*) trees and saplings, sparkleberry (*Vaccinium arboretum*), and American beautyberry (*Callicarpa americana*).

Wildlife and Fish

Due to the routine mowing of the vegetation of within the construction area and the fact that the tree clearing area is a narrow strip of trees surrounded by the mowed area, all within an active airport, many wildlife species do not use the study area as permanent habitat.

Common wildlife species such as deer, rabbit, coyote, and other small mammals may enter the airport property and use the open space for forage and hunting. It is not likely that the proposed ATCT site would be used as permanent or long-term habitat. SHV is a commercial service airport and must comply with the wildlife hazard management requirements, standards, and recommendations made by the FAA in Advisory Circulars and other regulations to maintain a safe operating environment.

Special Status Species

The USFWS IPaC report lists two federally listed threatened or endangered species which may occur within the project area, shown in Table 4-1. Additionally, there are two species proposed for listing and one candidate species. The Threatened and Endangered Species Assessment including the USFWS IPaC report is attached as **Appendix A: Threatened and Endangered Assessment.**

Table 4-1. Federally Listed Species

Common Name	Scientific Name	County Listed Status	Study Area Status
Northern long-eared bat	*Myotis septentrionalis*	Endangered	No effect
Red-cockaded woodpecker	*Picoides borealis*	Endangered	No effect
Tricolored bat	*Perimyotis subflavus*	Proposed endangered	No effect
Alligator snapping turtle	*Macrochelys temminckii*	Proposed threatened	No effect
Monarch butterfly	*Danaus plexippus*	Candidate	No effect

Source: (USFWS, 2023)

Northern Long-Eared Bat

No critical habitat has been designated for this species.

A species-specific presence/absence survey was not conducted as part of this assessment. The forested community encompassing the eastern portion of the project area does not provide suitable roosting habitat for the northern long-eared bat. No loosed-barked trees or snags were identified within the forested area. The forested area may provide low quality foraging habitat for this species.

According to information provided by Ms. Amy Trahan of the USFWS Ecological Field Service Office in Lafayette, Louisiana on March 5, 2024, no northern long-eared bats,

maternity roost trees, or hibernacula have been documented as occurring within or near the proposed project area. Additionally, no new information pertaining to northern long-eared bat maternity roost trees or hibernacula has been received from the LNHP. Due to the absence of potential roosting habitat, the presence of only low-quality foraging habitat, and the absence of recorded maternity roost trees or hibernacula within or near the proposed project area, therefore, the Proposed Action will have no effect on the northern long-eared bat.

Red-cockaded Woodpecker

No critical habitat has been designated for this species.

No suitable nesting or foraging habitat is present as no mature pine trees are located within the project area.

Due to the absence of suitable foraging or nesting habitat and the absence of any signs of the species, the Proposed Action will have no effect on the RCW.

Tricolored Bat

Since the tricolored bat remains proposed for listing as endangered, no critical habitat has been designated for this species.

Southern tricolored bats will roost in the foliage of live or recently dead deciduous trees. These types of trees are present within the project area and may provide suitable summer roosting habitat for this species. A species-specific presence/absence survey was not conducted as part of this assessment. The mere presence of suitable roosting trees does not infer that the area is utilized by this mobile species. The wooded area within the project site does not provide any unique habitat suitability characteristics and is commonly found in much larger tracts in the surrounding region; therefore, removal of this narrow stand of trees under the Proposed Action will have no effect on this species.

Alligator Snapping Turtle

Since the alligator snapping turtle remains proposed for listing as threatened, no critical habitat has been designated for this species.

No alligator snapping turtles were identified within the project area. Although this species is associated with large river systems and other areas of deeper water, it more often selects structure (e.g., root masses, stumps, submerged trees, etc.) than open water and may select sites with a high percentage of canopy cover. No large streams or rivers are located within the proposed project area. The intermittent stream in the eastern portion of the project area is not large enough and does not provide the suitable in-stream microhabitat to support this species.

Based on the absence of suitable habitat, the Proposed Action will have no effect on this species.

Monarch Butterfly

Since this species is a candidate for listing, no critical habitat has been designated for this species.

No milkweeds, which are necessary for the reproduction of this species, were identified within the project area. Additionally, no blooming nectar resources were identified within the project area; therefore, suitable habitat for this species is not present within the project area.

Therefore, the Proposed Action will have no effect on this species.

Migratory Birds

Six migratory birds are listed by USFWS as having a probability of presence within the study area. These species could be present during their breeding season which ranges from March 1 to September 30. The migratory bird species could use the airport land for hunting and foraging; however, the proposed ATCT site would not provide desirable habitat for long-term use.

Invasive Species

The Louisiana Native Plant Society maintains a website with a list of 30 invasive plant species. One listed species, bermudagrass, is present within the proposed project area. Bermudagrass is a common pasture grass planted in this region. The project would remove Bermudagrass from the construction areas but would not contribute to its spread.

4.2.1.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for biological resource impacts can be reviewed in the BIL ATCT PEA and the FAA Order 1050.1F Desk Reference, Section 2.3.1 (FAA, 2020a).

Alternative 1: Proposed Action

Federally listed threatened and endangered species are considered to have no effect from the Proposed Action . No critical habitat is present within the study area.

Construction of the proposed new ATCT could result in minimal effects to biological resources from construction traffic and removal of vegetation. Although much of the vegetation found on the proposed site is common or non-native, insects, birds, and small wildlife could have to find new habitat to hunt and feed once it is cleared and constructed. However, the area is surrounded by similar habitat.

No significant impacts to biological resources are expected for the Proposed Action.

Alternative 2: No Action Alternative

Under the No Action Alternative, the current ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing biological resources would occur.

4.2.2 COASTAL RESOURCES

The Subject Property is located approximately 150 miles from the nearest coastal resource. Additionally, a letter was received from the State of Louisiana Department of Natural Resources Office of Coastal Management which stated the Subject Property is not with the Louisiana Coastal Zone on January 25, 2004. Therefore, this resource category does not require additional analysis within this EA.

4.2.3 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(F)

Section 4(f) of the U.S. Department of Transportation (DOT) Act of 1966 (codified in 49 U.S.C. § 303 and 23 U.S.C. § 138) applies to projects that receive funding from or require approval by agencies within the DOT and provides for the consideration of certain properties of national, state, and/or local significance during transportation project development, such as: public owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites.

Before approving a transportation project requiring the use of these properties, the DOT agency must determine that there is no feasible and prudent alternative to using that land and the project includes all possible planning to minimize harm resulting from the use (FAA, 2020a).

The property currently proposed for construction under the proposed alternative is owned and maintained by SHV and has not been designated as or qualifies as a Section 4(f) property. Therefore, there are no Section 4(f) properties within the project area and none were found within 0.25-mile radius of the study area. Therefore, this resource category does not require additional analysis within this EA.

4.2.4 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

Historic and cultural resources are sites, structures, buildings, districts, or objects, associated with important historic events or people, demonstrating design or construction associated with a historically significant movement, or with the potential to yield historic or prehistoric

data, that are considered important to a culture, a subculture, or a community for scientific, traditional, religious, or other reasons (NPS, 1997). Historic and cultural resources may be subdivided into the following categories: Archaeological resources, Architectural resources, Native resources, and Traditional cultural properties (TCPs).

Historic, architectural, archaeological, and cultural resources were reviewed for this EA in accordance with the following two federal acts.

The National Historic Preservation Act of 1966, as amended, established the National Historic Preservation Program, which includes directives for the identification, assistance, and protection of historic properties. The Act also established the Advisory Council on Historic Preservation to advise the President and Congress on historic preservation matters, to recommend measures to coordinate federal historic preservation activities, and to comment on federal actions affecting properties included in or eligible for inclusion in the National Register of Historic Places (NRHP). The NRHP is the official national listing of important historic and prehistoric resources. (National Historic Preservation Act, 16. U.S.C. 470).

The Archaeological and Historic Preservation Act of 1974 requires the survey, recovery, and preservation of significant and prehistoric data that may be destroyed or irreparably lost because of a Federal, federally funded, or federally licensed projects. (16 U.S.C. 469-469-c-2)

4.2.4.1 Affected Environment

The Louisiana Department of Culture, Recreation, and Tourism, State Historic Preservation Officer (SHPO) was notified to determine whether the implementation of the proposed action would adversely affect known archaeological sites or historical properties. Correspondence received from SHPO indicated that they could not make an “effects determination but are not aware of any potential concerns based on the information provided”.

Based on a site search of the restricted *Louisiana Office of Cultural Development, Division of Archaeology Databases, Louisiana Cultural Resources Map* and the National Register of Historic Places, no recorded archaeological sites or historic properties would be affected by the proposed action and there are no historical or cultural resources adjacent to the proposed project. The project site has been previously disturbed and the majority is maintained as turf. SHPO response did not recommend an archaeological survey or further investigation.

4.2.4.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for historical, architectural, archeological, and historic resource impacts can be reviewed in the BIL ATCT PEA and the FAA Order 1050.1F Desk Reference, Section 8.3.1 (FAA, 2020a).

Alternative 1: Proposed Action

Implementation of the proposed action is not expected to impact currently undiscovered archaeological resources since the Proposed Action is not considered a high probability area associated with prehistoric occupation. However, should construction associated with the proposed action unearth any archaeological resources, the provisions of emergency discovery would apply, and the cognizant agencies would be contacted. Because no adverse impacts upon historic, architectural, archaeological, or cultural resources are anticipated due to implementation of the proposed action, no mitigation measures would be required.

Alternative 2: No Action Alternative

Under the No Action Alternative, the current ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing historical, architectural, archaeological, and cultural resources would occur.

4.2.4.3 Mitigation

If unanticipated discovery of cultural resources occurs during project implementation, activities would immediately stop around the resource (FAA, 2020a). The uncovered resources would be protected. In compliance with all applicable laws and regulations, the FAA would consult with the SHPO and tribes on the discovery. The FAA would consider their recommendations, conduct appropriate actions, then provide a report of those actions after they are completed (36 CFR 800.13).

4.2.5 VISUAL EFFECTS

Visual effects are considered under two categories, light emissions, and visual resources/character. Light emissions from outdoor lighting in parking lots, streets, and within businesses or homes affect the darkness of the night sky, particularly in rural areas where fewer light sources are present. Visual character is the overall description of an area, such as rural, farmland, urban, coastal, or mountainous. (FAA, 2020a)

4.2.5.1 Affected Environment

The Proposed Action is located on existing airport property within the city limits of Shreveport, Louisiana. The proposed site is located on unlit land west of the existing runways and airport terminal. The proposed ATCT site is located a minimum of 0.25 mile from the airport boundary. The Life United Church is located approximately 0.43 mile from the proposed ATCT site. Highway 511 and associated street lighting is located between the church and the ATCT site.

Light Emission

The proposed ATCT site is located within the existing airport property. The proposed ATCT site and associated roads and parking will be lighted on the same schedule as the existing ATCT and parking. Airport facilities remain lit for safety and security purposes.

Visual Resources and Visual Character

The visual character of the immediate area consists of a mowed, maintained grassy area, forested areas, runways, and airport facilities. Current usage of the surrounding areas include unimproved land and an airport runway to the north; unimproved land and an airport runway to the east; unimproved land to the south; and unimproved land to the west. Airport roads are located on each of the adjoining properties.

4.2.5.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for visual effects resource impacts can be reviewed in the BIL ATCT PEA and the FAA Order 1050.1F Desk Reference, Section 13.3.3 (FAA, 2020a).

Alternative 1: Proposed Action

The Proposed Action includes the construction of a new ATCT on undeveloped, unlit land that is adjacent to vegetated areas. Construction of the ATCT, access road, and parking lot will introduce light emissions to this area of the airport.

Visually important resources have not been identified. Therefore, construction of the new ATCT and removal of the existing ATCT would not affect these resources. Construction would occur during the daytime and no additional nighttime lights would be required. Replacement of the existing ATCT with a new ATCT will result in minimal, if any, effects on visual resources.

Alternative 2: No Action Alternative

Under the No Action Alternative, the current ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impacts to existing visual effects would occur.

4.2.6 WATER RESOURCES

Water resources include wetlands, floodplains, surface water, groundwater, and wild and scenic rivers. These resources provide drinking water, irrigation, and other water uses for communities, in addition to recreation and transportation opportunities, and habitat for vegetation and wildlife species.

4.2.6.1 Affected Environment

Wetlands

There are no wetlands present within the Proposed Action construction area as shown on Exhibit 4.2: Water Resources. NWI maps do not show any wetlands mapped within the project area. A full Wetland Assessment for the Proposed Action study area is included in **Appendix B: Wetland Assessment**.

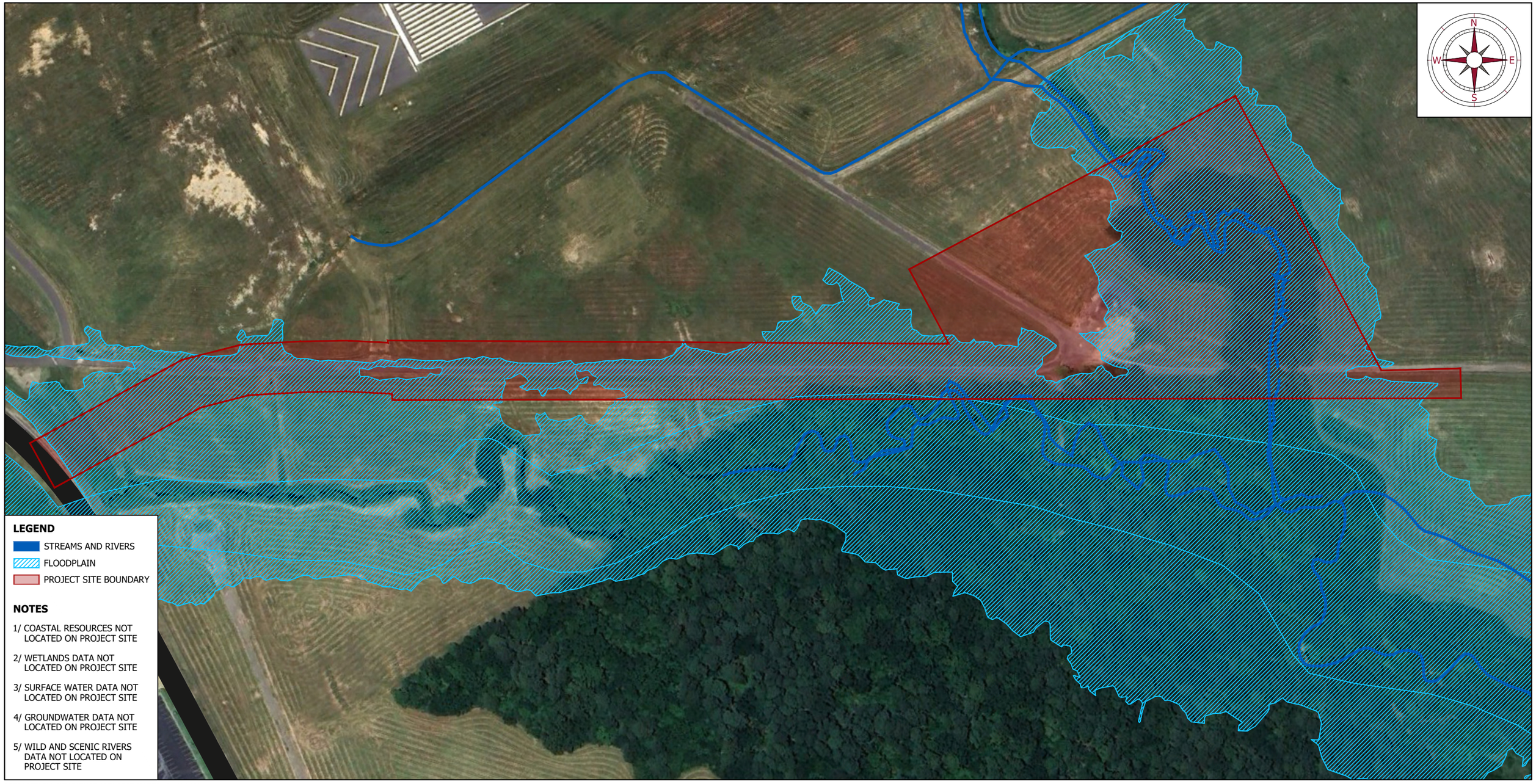
Floodplains

Executive Order 11988, Floodplain Management, (Exec. Or. 11988, 42 Red. Reg. 26951, May 25, 1977) and U.S. DOT Order 5650.2, Floodplain Management and Protection, requires that all FAA actions must avoid floodplains if a "practicable alternative" is available. For regulatory purposes, floodplains are low lying areas that are discussed in percent likelihood of inundation occurring within one year. Thus, an area with a 1% chance of inundation is referred to as the "base flood" or, more commonly, the "100-year" flood. The Federal Emergency Management Agency (FEMA) is the implementing agency for the flood plain regulations. The City of Shreveport has Floodplain Ordinances that must be followed.

As shown on **Exhibit 4.2: Water Resources**, a portion of the proposed built alternative area is located within the base flood area.

SHREVEPORT REGIONAL AIRPORT

[DRAFT]


N
W
E
S
LEGEND
STREAMS AND RIVERS
FLOODPLAIN
PROJECT SITE BOUNDARY
NOTES
1/ COASTAL RESOURCES NOT LOCATED ON PROJECT SITE
2/ WETLANDS DATA NOT LOCATED ON PROJECT SITE
3/ SURFACE WATER DATA NOT LOCATED ON PROJECT SITE
4/ GROUNDWATER DATA NOT LOCATED ON PROJECT SITE
5/ WILD AND SCENIC RIVERS DATA NOT LOCATED ON PROJECT SITE

PREPARED BY: NEWHOUSE AND ASSOCIATES, *JULY 2024*
SOURCE: NEWHOUSE AND ASSOCIATES

EXHIBIT 4.2
WATER RESOURCES

0 200

Surface Water

There is no surface water present within the proposed ATCT construction area. A stream is located within the tree clearing area as shown on Exhibit 4.2. No debris from the tree clearing will be placed in the stream or adjacent buffer. No impacts to the stream will occur.

Groundwater

According to the information from the Louisiana Geological Survey, the subject property overlies the Carrizo-Wilcox aquifer formation. The Carrizo-Wilcox formation is considered a major aquifer. Potable water utilized in the area is drawn for the lower portion of this aquifer, which is several hundred feet below the ground surface.

Based on the Physical Setting Report for the proposed new ATCT location, there are no active, plugged or abandoned wells at the proposed ATCT site. The nearest well is a plugged and abandoned domestic use well located approximately 1420 feet west-southwest of the site.

Wild and Scenic Rivers

The Subject Property is located approximately 28 miles west of the closest Wild and Scenic River, Bayou Dorcheat.

4.2.6.2 Environmental Consequences

Detailed guidance on significance thresholds and effects determinations for water resource impacts have been included in and can be reviewed in the BIL ATCT PEA and the FAA Order 1050.1F Desk Reference, Sections 14.1.3 through 14.5.3.1 (FAA, 2020a).

Alternative 1: Proposed Action

The proposed Build Action will impact the floodplain by constructing the Proposed Action within the floodplain. No impacts to wetlands, surface water, ground water, or Wild and Scenic Rivers will occur as the result of this project.

Alternative 2: No Action Alternative

Under the No Action Alternative, the current ATCT would not be removed and replaced, and activities associated with the ATCT would remain the same. No impact to existing water resources would occur.

4.2.6.3 Mitigation

Construction of the Proposed Action will impact the 100-year floodplain as the entirety of the site sits within the floodplain. The Federal Emergency Management Agency (FEMA) is the implementing agency for the flood plain regulations. The City of Shreveport has Floodplain Ordinances that must be followed. The airport will coordinate with the Shreveport Floodplain Administrator to obtain the necessary permits and determine the mitigation measures

required. This would ensure that any impacts to the floodplain are minimal. The siting study found that there was no practical alternative to building outside of the floodplain.

4.3 Cumulative Impacts

There are no additional projects to evaluate as part of the cumulative impacts, therefore the cumulative impacts analysis is covered under the BIL ATCT PEA and FONSI/ROD and should be referred to as programmatically covered under this decision document.

5. List of Preparers

5.1 Lead Agency

The FAA is the lead agency for the preparation of this EA. Responsibility for review and approval of this EA rests with the FAA. The following FAA staff members were involved in the preparation of this EA:

Darvin Messer, Environmental Protection Specialist

5.2 Principal Preparers

Responsibility for preparation of this EA rests with the Baton Rouge Metropolitan Airport Commission. Listed below are the people responsible for the preparation of this EA.

5.2.1 SHREVEPORT REGIONAL AIRPORT

Stacy C. Kuba, A.A.E. – Deputy Director of Airports

5.2.2 KSA

Jonathan N. Farmer, B.S. Civil Engineering. 17 years of experience. Responsible for project management and client/funding, and agency coordination.

Michael Mitchell, Ed.D, C.M. Senior Aviation & Environmental Planner. 10 years' experience. Responsible for EA preparation and review.

5.2.3 KUTCHINS & GROH

Bradley C. Kutchins, P.E. B.S., Civil Engineering. 33 years of experience. Responsible for contractual oversight of the EA preparation and client coordination.

Lisa G. Lawson, RLA, Bachelor of Landscape Architecture. 36 years of experience. Responsible for preparation and review of the EA.

5.2.4 NEWHOUSE AND ASSOCIATES

Monica R. Newhouse, B.S. Aerospace, M.B.A. Information Decision Sciences. 30 years of experience. Responsible for overall document preparation and technical writing.

5.2.5 SPHERE 3 ENVIRONMENTAL, INC.

Adam T Black, B.S., Wildlife Science. 32 years of experience. Responsible for EA preparation.

Kerri E. Smith, B.A., Biology, M.S., Biology. 25 years of experience. Responsible for EA preparation.

APPENDIX A: THREATENED AND ENDANGERED SPECIES

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INTRODUCTION

Sphere 3 Environmental, Inc. (Sphere 3) was retained by KSA Engineers, Inc. (KSA) to conduct an assessment of the proposed ATCT 3a Project at the Shreveport Regional Airport in Caddo Parish, Louisiana to determine if suitable habitat for federally listed threatened and endangered species is present within the project area.

The proposed project area consists of approximately 8.3 acres including forested and open areas, airport service roads, and a graveled storage pad. Maps of the project area are provided in Attachment A. Site photographs of the project area are provided in Attachment B.

One intermittent stream is located within the project area. If any impacts occur within the stream, a Section 404 permit from the United States Army Corps of Engineers (USACE) may be required.

PURPOSE

Sphere 3 conducted a habitat assessment to determine if suitable habitat for federally listed threatened or endangered species is present within the proposed project area. Impacts to threatened and endangered species are regulated under the Endangered Species Act of 1973.

METHODOLOGY

Sphere 3 began this investigation by obtaining and reviewing species occurrence data from the United States Fish and Wildlife Service (USFWS) and Louisiana Department of Wildlife and Fisheries (LDWF) as well as reviewing the USFWS web-based Information, Planning, and Conservation System (IPaC).

Previously acquired species occurrence data from the Louisiana Department of Wildlife and Fisheries (LDWF), Wildlife Diversity Program in Baton Rouge, LA along with species descriptions from the LDWF and the USFWS were also reviewed prior to the field investigation. According to the USFWS web-based Information, Planning, and Conservation System (IPaC) species list, the northern long-eared bat (*Myotis septentrionalis*) and the red-cockaded woodpecker (*Picoides borealis*) are listed as endangered and have ranges that include the project area in Caddo Parish. No proposed or designated critical habitat exists within the project location.

The tricolored bat (*Perimyotis subflavus*) is proposed for listing as an endangered species, and the alligator snapping turtle (*Macrochelys temminckii*) is proposed for listing as a threatened species

in Caddo Parish. Additionally, the monarch butterfly (*Danaus plexippus*) is a candidate for listing as a threatened or endangered species in Caddo Parish.

Species listed as proposed endangered, proposed threatened, and candidate are not protected by the take prohibitions of section 9 of the Endangered Species Act (ESA). However, under section 7(a)(4) of the ESA, federal agencies must confer with the USFWS if their action will jeopardize the continued existence of a proposed species.

John Quine, Sphere 3 Biologist, conducted a pedestrian survey of the proposed project on October 23, 2023, to document habitat types present within the project area. The proposed project area was photographed, mapped, and visually investigated for suitable habitat or signs of federally protected threatened or endangered species.

EXISTING CONDITIONS

Open Community

The open community is found in both the construction and tree clearing areas and encompasses approximately 4.4 acres within the project area. Bermudagrass (*Cynodon dactylon*), bahiagrass (*Paspalum notatum*), false garlic (*Nothoscordum bivalve*), smartweed (*Polygonum* sp.), and southern annual saltmarsh aster (*Symphiotrichum divaricatum*) are present throughout the community. The areas are maintained and had been recently mowed at the time of the field visit. Vegetation height ranges from approximately 0 to 2 inches tall, and coverage ranges from approximately 70 to 95% across the community.

Forested Community

The forest community has a tree stratum composed of water oak (*Quercus nigra*), hickory (*Carya* sp.), and eastern hophornbeam (*Ostrya virginiana*). The sapling stratum also includes water oak and eastern hophornbeam. The shrub stratum is composed of farkleberry (*Vaccinium arboreum*) and American beautyberry (*Callicarpa americana*). Woody vines present in the community include common greenbrier (*Smilax rotundifolia*) and muscadine grape vine (*Vitis rotundifolia*). The overstory reaches approximately 40 to 60 feet with approximately 80 percent cover. Diameter-at-breast-height ranges from approximately 6 to 8 inches. The midstory reaches heights of approximately 20 to 30 feet with approximately 25 percent cover. The woody vine stratum has approximately 20 to 30 percent cover within the community.

Intermittent Stream

One intermittent stream is located in the eastern, tree-clearing portion of the project area. The stream has a bank width of approximately 15 to 20 feet with a water width of approximately 6 to

10 feet. The bed to bank depth is approximately 7 to 10 feet, and an ordinary high water mark is present at approximately 12 to 14 inches. Water was present in the channel at the time of the field investigation.

SPECIES DESCRIPTIONS AND HABITAT REQUIREMENTS

Northern Long-Eared Bat

The northern long-eared bat was listed by the USFWS as an endangered species on March 31, 2023. The primary reason for listing is the impact of white-nosed syndrome on the northern long-eared bat across most of its range. Since symptoms were first observed in New York in 2006, white nose syndrome has spread rapidly from the Northeast to the Midwest and Southeast; an area that includes the core of the northern long-eared bat's range, where it was most common before this disease. Numbers of northern long-eared bats (from hibernacula counts) have declined by up to 99 percent in the Northeast (USFWS 2015a).

A medium-sized bat species, the northern long-eared bat's adult body weight averages 5 to 8 grams with females tending to be slightly larger than males (Caceres and Pybus 1997). Average body length ranges from 77 to 95 millimeters, tail length between 35 and 42 millimeters, forearm length between 34 and 38 millimeters, and wingspread between 228 and 258 millimeters (Caceres and Barclay 2000; Barbour and Davis 1969). Pelage colors include medium to dark brown on its back; dark brown, but not black, ears and wing membranes; and tawny to pale-brown fur on the ventral side (Nagorsen and Brigham 1993; Whitaker and Mumford 2009).

As indicated by its common name, the northern long-eared bat is distinguished from other Myotis species by its relatively long ears (average 17 millimeters) (Whitaker and Mumford 2009) that, when laid forward, extend beyond the nose up to 5 millimeters (Caceres and Barclay 2000). The tragus is long (average 9 millimeters) (Whitaker and Mumford 2009), pointed, and symmetrical (Nagorsen and Brigham 1993; Whitaker and Mumford 2009). Within its range, the northern long-eared bat can be confused with the little brown bat (*Myotis lucifugus*) or the western long-eared myotis (*Myotis evotis*). The northern long-eared bat can be distinguished from the little brown bat by its longer ears, tapered and symmetrical tragus, slightly longer tail, and less glossy pelage (Caceres and Barclay 2000). The northern long-eared bat can be distinguished from the western long-eared myotis by its darker pelage and paler membranes (Caceres and Barclay 2000). Northern long-eared bats are nocturnal foragers and use hawking (catching insects in flight) and gleaning (picking insects from surfaces) behaviors in conjunction with passive acoustic cues (Nagorsen and Brigham 1993; Ratcliffe and Dawson 2003). The northern long-eared bat has a diverse diet including moths, flies, leafhoppers, caddisflies, and beetles (Nagorsen and Brigham 1993; Brack and Whitaker 2001; Griffith and Gates 1985). The most common insects found in the diets of northern long-eared bats are lepidopterans (moths) and coleopterans (beetles) (Brack

and Whitaker 2001; Feldhamer et al. 2009; Dodd et al. 2012), with arachnids also being a common prey item (Feldhamer et al. 2009). Most foraging occurs above the understory, 1 to 3 meters above the ground, but under the canopy (Nagorsen and Brigham 1993) on forested hillsides and ridges, rather than along riparian areas (Brack and Whitaker 2001; LaVal et al. 1977). This coincides with data indicating that mature forests are an important habitat type for foraging northern long-eared bats (Caceres and Pybus 1997).

Northern long-eared bats predominantly overwinter in hibernacula that include caves and abandoned mines. Northern long-eared bats are typically found roosting in small crevices or cracks in cave or mine walls or ceilings, sometimes with only the nose and ears visible (Griffin 1940; Barbour and Davis 1969; Caceres and Pybus 1997; Whitaker and Mumford 2009). Although confamilial bat species (e.g., big brown bats) have been found using non-cave or mine hibernacula, including attics and hollow trees (Neubaum et al. 2006; USFWS 2016), northern long-eared bats have only been observed over-wintering in suitable caves, mines, or habitat with the same types of conditions found in suitable caves or mines.

During the summer, northern long-eared bats typically roost singly or in colonies underneath bark or in cavities or crevices of both live trees and snags (Sasse and Pekins 1996; Foster and Kurta 1999; Owen et al. 2002; Carter and Feldhamer 2005; Perry and Thill 2007; Timpone et al. 2010). The northern long-eared bat appears to be somewhat flexible in tree roost selection, selecting varying roost tree species and types of roosts throughout its range (USFWS 2016). Northern long-eared bats most likely are not dependent on certain species of trees for roosts throughout their range; rather, many tree species that form suitable cavities or retain bark will be used by the bats opportunistically (Foster and Kurta 1999). In the majority of northern long-eared bat telemetry studies, roost trees consist predominantly of hardwoods (e.g., Foster and Kurta 1999; Lacki and Schwierjohann 2001; Broders and Forbes 2004). Of the few northern long-eared bat telemetry studies in which conifers represented a large proportion of roosts, most were reported as snags (e.g., Cryan et al. 2001; Jung et al. 2004).

Very little information is available concerning the northern long-eared bat in Louisiana. Habitat and roosting preferences along with foraging behavior are based almost solely on studies conducted in more northern portions of the northern long-eared bat range. In 2000, during sampling of bat populations in the Kisatchie National Forest, Louisiana, three northern long-eared bats, including two males and one lactating female, were collected. These were the first official records of the species from Louisiana, and the presence of a reproductive female likely represents a resident summer colony (Crnkovic 2003). Northern long-eared bats have not been documented using caves in Louisiana, including the five known caves that occur within 87 kilometers of the collection site (Crnkovic 2003).

Tricolored Bat

The tricolored bat is currently proposed for listing as an endangered species under the Endangered Species Act. It is one of the smallest bats in eastern North America and is distinguished by its unique tricolored fur that appears dark at the base, lighter in the middle, and dark at the tip (Barbour and Davis 1969, p. 115). Tricolored bats (TCB) often appear yellowish (varying from pale yellow to nearly orange), but may also appear silvery-gray, chocolate brown, or black (Barbour and Davis 1969, p. 115). Males and females are colored alike, but females are consistently heavier than males (LaVal and LaVal 1980, p. 44).

During the spring, summer, and fall (i.e., non-hibernating seasons), TCB primarily roost among live and dead leaf clusters of live or recently dead deciduous hardwood trees (Veilleux et al. 2003, p. 1071; Perry and Thill 2007, pp. 976–977; Thames 2020, p. 32). In the southern and northern portions of the range, TCB will also roost in Spanish moss (*Tillandsia usneoides*) and *Usnea trichodea* lichen, respectively (Davis and Mumford 1962, p. 395; Poissant 2009, p. 36; Poissant et al. 2010, p. 374). In addition, TCB have been observed roosting during summer among pine needles (Perry and Thill 2007, p. 977), eastern red cedar (*Juniperus virginiana*) (Thames 2020, p. 32), within artificial roosts (e.g., barns, beneath porch roofs, bridges, concrete bunkers) (Jones and Pagels 1968, entire; Barbour and Davis 1969, p. 116; Jones and Suttkus 1973, entire; Hamilton and Whitaker 1979, p. 87; Mumford and Whitaker 1982, p. 169; Whitaker 1998, p. 652; Feldhamer et al. 2003, p. 109; Ferrara and Leberg 2005, p. 731), and rarely within caves (Humphrey et al. 1976, p. 367; Briggler and Prather 2003 p. 408; Damm and Geluso 2008, p. 384). Female TCB exhibit high site fidelity, returning year after year to the same summer roosting locations (Allen 1921, p. 54; Veilleux and Veilleux 2004, p. 197). Female TCB form maternity colonies and switch roost trees regularly (e.g., between 1.2 days and 7 days at roost trees in Indiana) (Veilleux and Veilleux 2004, p.197; Quinn and Broders 2007, p. 19; Poissant et al. 2010, p. 374). Males roost singly (Perry and Thill 2007, p. 977; Poissant et al. 2010, p. 374).

During the winter, TCB hibernate (i.e., reduce their metabolic rates, body temperatures, and heart rate) in caves and mines, although in the southern U.S., where caves are sparse, TCB often hibernate in road-associated culverts (Sandel et al. 2001, p. 174; Katzenmeyer 2016, p. 32; Limon et al. 2018, entire; Bernard et al. 2019, p. 5; Lutsch 2019, p. 23; Meierhofer et al. 2019, p. 1276) and sometimes tree cavities (Newman 2020, p. 14) and abandoned water wells (Sasse et al. 2011, p. 126). TCB exhibit high site fidelity with many individuals returning year after year to the same hibernaculum (Davis 1966, p. 385; Jones and Pagels 1968, p. 137; Jones and Suttkus 1973, p. 964; Sandel et al. 2001, p. 175).

Hibernating TCB do not typically form large clusters; most commonly roost singly, but sometimes in pairs, or in small clusters of both sexes away from other bats (Hall 1962, p. 29; Barbour and Davis 1969, p. 117; Mumford and Whitaker 1982, p. 169; Raesly and Gates 1987, p. 19; Briggler and Prather 2003, p. 408; Vincent and Whitaker 2007, p. 62). TCB roost on cave walls (more often) and ceilings and are rarely found in cave crevices (Mumford and Whitaker 1982, p. 169).

TCB will shift roosts from one to another during the winter but arouse less frequently than other cave-hibernating bat species (Barbour and Davis 1969, p. 119; Mumford and Whitaker 1982, p. 169). In road-associated culverts in the southern U.S., however, TCB exhibit shorter torpor bouts and move within and between culverts throughout the winter (Anderson et al. undated).

TCB are opportunistic feeders and consume small insects including caddisflies (Trichoptera), flying moths (Lepidoptera), small beetles (Coleoptera), small wasps and flying ants (Hymenoptera), true bugs (Homoptera), and flies (Diptera) (Whitaker 1972, p. 879; LaVal and LaVal 1980, p. 24; Griffith and Gates 1985, p. 453; Hanttula and Valdez 2021, p. 132). TCB emerge early in the evening and forage at treetop level or above (Davis and Mumford 1962, p. 397; Barbour and Davis 1969, p. 116) but may forage closer to ground later in the evening (Mumford and Whitaker 1982, p. 170). TCB forage most commonly over waterways and forest edges (Barbour and Davis 1969, p. 116; Mumford and Whitaker 1982, pp. 170–171; Hein et al. 2009, p. 1204).

Male and female TCB converge at cave and mine entrances between mid- August and mid-October to swarm and mate. Adult females store sperm in their uterus during the winter and fertilization occurs soon after spring emergence from hibernation (Guthrie 1933, p. 209). Females typically give birth to two young, rarely one or three between May and July (Allen 1921, p. 55; Barbour and Davis 1969, p. 117; Cope and Humphrey 1972, p. 9). Young grow rapidly and begin to fly at 3 weeks of age and achieve adult-like flight and foraging ability at 4 weeks (Lane 1946, p. 59; Whitaker 1998, pp. 653–655). Adults often abandon maternity roosts soon after weaning, but young remain longer (Whitaker 1998, p. 653).

Perry and Thill 2007 (p. 977) observed an average of 6.9 adult females and pups per colony in Arkansas (range 3 to 13). Maternity colonies include up to 18 females in trees in Nova Scotia (Poissant et al. 2010, p. 374). Whitaker (1998, p. 652) found colonies in buildings averaged 15 adult females (range 7 to 29 adult females). Hoying and Kunz 1998 (p. 19) reported the largest colony on record in a Massachusetts barn (19 adult females and 37 young).

Texas and Louisiana fall into the southern representative unit (RPU) of the TCB. Southern TCB exhibit shorter hibernation lengths and some remain active and feed year round (Grider et al. 2016, p. 8; Newman 2020, pp. 13–17). The Southern RPU is predominantly marked by subtropical climate conditions, high humidity (especially in summer), and the absence of harsh cold winters. Southern TCB may benefit from reduced physiological pressures associated with maintaining torpor during long harsh winters and in turn have higher survival rate (Fraser et al. 2012, p. 6). Southern TCB are also unique in their frequent exploitation of road-associated culverts as winter hibernacula in the southern U.S. As discussed in *Individual-level Ecology and Needs*, culverts account for the majority of hibernacula documented in Mississippi, Georgia, and Louisiana (Limon et al. 2018, entire; NABat 2021). Researchers have hypothesized that utilizing culverts coupled with sub-tropical climate conditions will lead to TCB exhibiting frequent arousal and foraging events during winter (Castleberry et al. 2019, p. 2). If TCB utilizing culverts are exhibiting

increased winter activity related to foraging or otherwise, these euthermic bouts could significantly reduce their susceptibility to WNS (Cornelison et al. 2019, p. 3).

During the summer, Southern TCB predominantly roost in foliage of live or recently dead deciduous hardwood trees (see *Individual-level Ecology and Needs*); however, TCB will also roost in Spanish moss (Davis and Mumford 1962, p. 395).

Red-cockaded Woodpecker

The red-cockaded woodpecker (RCW) was federally listed as endangered on October 13, 1970. It is about the size of the common cardinal and is typically 7 to 8 inches long with a wingspan of about 14 to 15 inches. This bird's most distinguishing feature is a black cap and nape that encircle large white cheek patches. The males have a small red streak on each side of the black cap, which is rarely seen except perhaps during the breeding season (USFWS 2003).

The RCW is the only woodpecker species to use live pine trees as cavity sites. Longleaf pines are most often used as nesting and roosting sites, but other species of southern pine are acceptable. Potential nesting habitat typically contains pine trees greater than 60-80 years old (Rudolph, D.C. and R.N. Conner 1991). The birds prefer to inhabit open, park-like, mature pine forests dominated by large diameter pine trees. Large diameter trees are necessary to enable the birds to completely excavate roosting and nesting cavities within inactive heartwood. This allows the cavities to remain free of resin that can entrap the birds (Hooper 1991). Old growth trees may also be preferred because of a higher incidence of red heart fungus (*Phellinus pini*), a fungal infection causing heartwood decay that greatly facilitates cavity excavation.

Appendix 5 of the RCW recovery plan (Private Lands Guidelines) states that typical RCW foraging habitat on private lands should contain pine trees that are a minimum of 30 years old, primarily ≥10 inches in DBH, and located within 0.25 mile of a RCW cluster. Suitable RCW foraging habitat should have no hardwood midstory, or, if a hardwood midstory is present, it should be sparse and below approximately 7 feet in height. On private lands, any areas counted as suitable foraging habitat should also be located within at least 200 feet of another area of foraging habitat or the RCW cluster itself (USFWS 2003).

Adequate stand structure is a very important parameter for RCW foraging habitat. Stands cannot be considered suitable as foraging habitat unless they have an "open" character. They also cannot be considered suitable foraging habitat simply because they contain pine trees of the required age and DBH. Stand quality, as measured by an open structure, is a critical factor in determining suitability and use of foraging habitat and must be considered when acceptable foraging habitat is identified (USFWS 2003).

Alligator Snapping Turtle

The alligator snapping turtle (*Macrochelys temminckii*) is currently proposed for listing as a threatened species under the Endangered Species Act. It is the largest species of freshwater turtle in North America and is among the most aquatic. They are primitive in appearance and are characterized by a large head, long tail, and an upper jaw with a strongly hooked beak. They have muscular legs and webbed toes with long, pointed claws. They have three keels with posterior elevations on the scutes of the carapace, which is dark brown and often has algal growth that adds to the alligator snapping turtle's camouflage. Their hinge-less plastron is significantly smaller than their carapace and is narrow and cross-shaped with a long, narrow bridge. The plastron is greyish-brown in color in adults; in juveniles it may be somewhat mottled with small whitish blotches. Their eyes are positioned on the side of the head and are surrounded by small, fleshy, pointed projections. Numerous epidermal projections are also present on the side of the head, chin and neck (Ernst and Lovich 2009, p. 138-139). Hatchlings look very similar to adults (Ernst and Lovich 2009, p. 146).

Alligator snapping turtles are associated with deeper water (usually large rivers, major tributaries, bayous, canals, swamps, lakes, ponds, and oxbows), with shallower water occupied in early summer and deeper depths in late summer and mid-winter, representing a thermoregulatory shift (Ernst and Lovich 2009, p. 141). Hatchlings and juveniles tend to occupy shallower water, in comparison. Alligator snapping turtles more often select structure (e.g., tree root masses, stumps, submerged trees, etc.) than open water and may select sites with a high percentage of canopy cover (Howey and Dinkelacker 2009, p. 589; Carr et al. 2007, p.37; Carr et al. 2010, p.43).

Alligator snapping turtles are opportunistic scavengers and consume a variety of foods. Fish comprise a significant portion of the alligator snapping turtle diet; however, crayfish, mollusks, smaller turtles, insects, nutria, snakes, birds, and vegetation (including acorns) have also been reported (Elsey 2006, p. 448-489). The alligator snapping turtle is the only turtle species that has a predatory lure (a small, worm-like appendage on the tongue). Both adults and juveniles use this lure to attract fish into striking range. The lure is white or pale pink in juveniles and mottled or gray in adults (Ernst and Lovich 2009, p. 147).

Sexual maturity is achieved in 11 to 21 years for males and 13 to 21 years for females. No more than one clutch per year per female (average 27.8 eggs per clutch) has been observed in the wild, and they exhibit lower reproductive output than the smaller common snapping turtle (*Chelydra serpentina*). They do not appear to be particularly selective about nest sites, but nests have been observed across a range of distances – approximately 8 to 656 ft (2.5 to 200 m) landward from the nearest water. Temperature of the nest site is important because this species also exhibits temperature-dependent sex-determination, Type 2 – where more males are produced at intermediate incubation temperatures and more females are produced at the two extremes (Ernst and Lovich 2009, p. 16, 144-146). Most nesting occurs from May to July (Reed et al. 2002, p. 4) with areas in the southern part of the range (e.g., Georgia, Florida and Louisiana) beginning in

April and extending through May and areas in the north/western portion of the range occurring from late May through June to early July (Ernst and Lovich 2009, p. 145, Carr et al. 2010, p. 87). Nest predation is a major source of mortality in many turtle populations. Growth is rapid until maturity (11 to 21 years of age) and slows after 15 years of age (Dobie 1971, p. 654). Alligator snapping turtles display sexual dimorphism with males being distinctly larger than females and having a greater anterior-to-vent tail length.

Monarch Butterfly

The monarch butterfly was listed as a candidate for federal status as a threatened or endangered species on December 17, 2020. The monarch, *Danaus plexippus*, is a species of butterfly in the order Lepidoptera (family Nymphalidae) that occurs in North, Central, and South America; Australia; New Zealand; islands of the Pacific and Caribbean, and elsewhere (Malcolm and Zalucki 1993). Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side and lower side of forewings and hindwings (Bouseman and Sternburg 2001). Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches (CEC 2008). The bright coloring of a monarch is aposematic, as it serves as a warning to predators that eating them can be toxic (USFWS 2020).

During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.), and larvae emerge after two to five days (Zalucki 1982; CEC 2008). Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic cardenolides as a defense against predators (Parsons 1965). The larva then pupate into chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months (Cockrell et al. 1993; Herman and Tatar 2001).

In many regions where monarchs are present, monarchs breed year-round, repeatedly following the above-referenced life cycle throughout the year (USFWS 2020). Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, where the migratory generation of adults is in reproductive diapause and lives for an extended period of time (Herman and Tatar 2001). In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km (Urquhart and Urquhart 1978) and last for over two months (Brower 1996). Migratory individuals in eastern North America predominantly fly south or southwest to mountainous overwintering grounds in central Mexico, and migratory individuals in western North America generally fly shorter distances south and west to overwintering groves along the California coast into northern Baja California (Solensky 2004).

Adult monarch butterflies during breeding and migration require a diversity of blooming nectar resources, which they feed on throughout their migration routes and breeding grounds (spring through fall). Monarchs also need milkweed (for both oviposition and larval feeding) embedded within this diverse nectaring habitat (USFWS 2020). The correct phenology, or timing, of both monarchs and nectar plants and milkweed is important for monarch survival. The position of these resources on the landscape is important as well. In western North America, nectar and milkweed resources are often associated with riparian corridors, and milkweed may function as the principal nectar source for monarchs in more arid regions (Dingle et al. 2005; Pelton et al. 2018; Waterbury and Potter 2018; Dilts et al. 2018). Individuals need nectar and milkweed resources year-round in nonmigratory populations. Additionally, many monarchs use a variety of roosting trees along the fall migration route (USFWS 2020).

POTENTIAL EFFECTS DETERMINATION

Northern Long-Eared Bat

No critical habitat has been designated for this species.

A species-specific presence/absence survey was not conducted as part of this assessment. The forested community encompassing the eastern portion of the project area does not provide suitable roosting habitat for the northern long-eared bat. No loosed-barked trees or snags were identified within the forested area. The forested area may provide low quality foraging habitat for this species.

According to information provided by Ms. Amy Trahan of the USFWS Ecological Field Service Office in Lafayette, Louisiana on March 5, 2024, no northern long-eared bats, maternity roost trees, or hibernacula have been documented as occurring within or near the proposed project area. Additionally, no new information pertaining to northern long-eared bat maternity roost trees or hibernacula has been received from the LNHP. Due to the absence of potential roosting habitat, the presence of only low quality foraging habitat, and the absence of recorded maternity roost trees or hibernacula within or near the proposed project area, it is Sphere 3's opinion that the project will have no effect on the northern long-eared bat.

Tricolored Bat

Since the tricolored bat remains proposed for listing as endangered, no critical habitat has been designated for this species.

Southern tricolored bats will roost in the foliage of live or recently dead deciduous trees. These types of trees are present within the project area and may provide suitable summer roosting habitat for this species. A species-specific presence/absence survey was not conducted as part of this

assessment. The mere presence of suitable roosting trees does not infer that the area is utilized by this mobile species. The wooded area within the project site does not provide any unique habitat suitability characteristics and is commonly found in much larger tracts in the surrounding region; therefore, removal of this narrow stand of trees will have no effect on this species.

Red-cockaded Woodpecker

No critical habitat has been designated for this species.

No suitable nesting or foraging habitat is present as no mature pine trees are located within the project area.

Due to the absence of suitable foraging or nesting habitat and the absence of any signs of the species, it is Sphere 3's opinion that the proposed project will have no effect on the RCW.

Alligator Snapping Turtle

Since the alligator snapping turtle remains proposed for listing as threatened, no critical habitat has been designated for this species.

No alligator snapping turtles were identified within the project area. Although this species is associated with large river systems and other areas of deeper water, it more often selects structure (e.g., root masses, stumps, submerged trees, etc.) than open water and may select sites with a high percentage of canopy cover. No large streams or rivers are located within the proposed project area. The intermittent stream in the eastern portion of the project area is not large enough and does not provide the suitable in-stream microhabitat to support this species.

Based on the absence of suitable habitat, it is Sphere 3's opinion that any proposed construction within the project area will have no effect on this species.

Monarch Butterfly

Since this species is a candidate for listing, no critical habitat has been designated for this species.

No milkweeds, which are necessary for the reproduction of this species, were identified within the project area. Additionally, no blooming nectar resources were identified within the project area; therefore, suitable habitat for this species is not present within the project area.

It is Sphere 3's opinion that any proposed construction within the project area will have no effect on this species.

SUMMARY

Sphere 3 investigated KSA's proposed ATCT 3a project area for suitable habitat and potential presence of federally protected threatened or endangered species.

Based on the results of the field investigation and our interpretation of the best available data for each of the listed species, Sphere 3 concludes that construction of the ATCT 3a will have no effect on species listed or proposed for listing as federally threatened and endangered species.

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Attachment A:

Figures

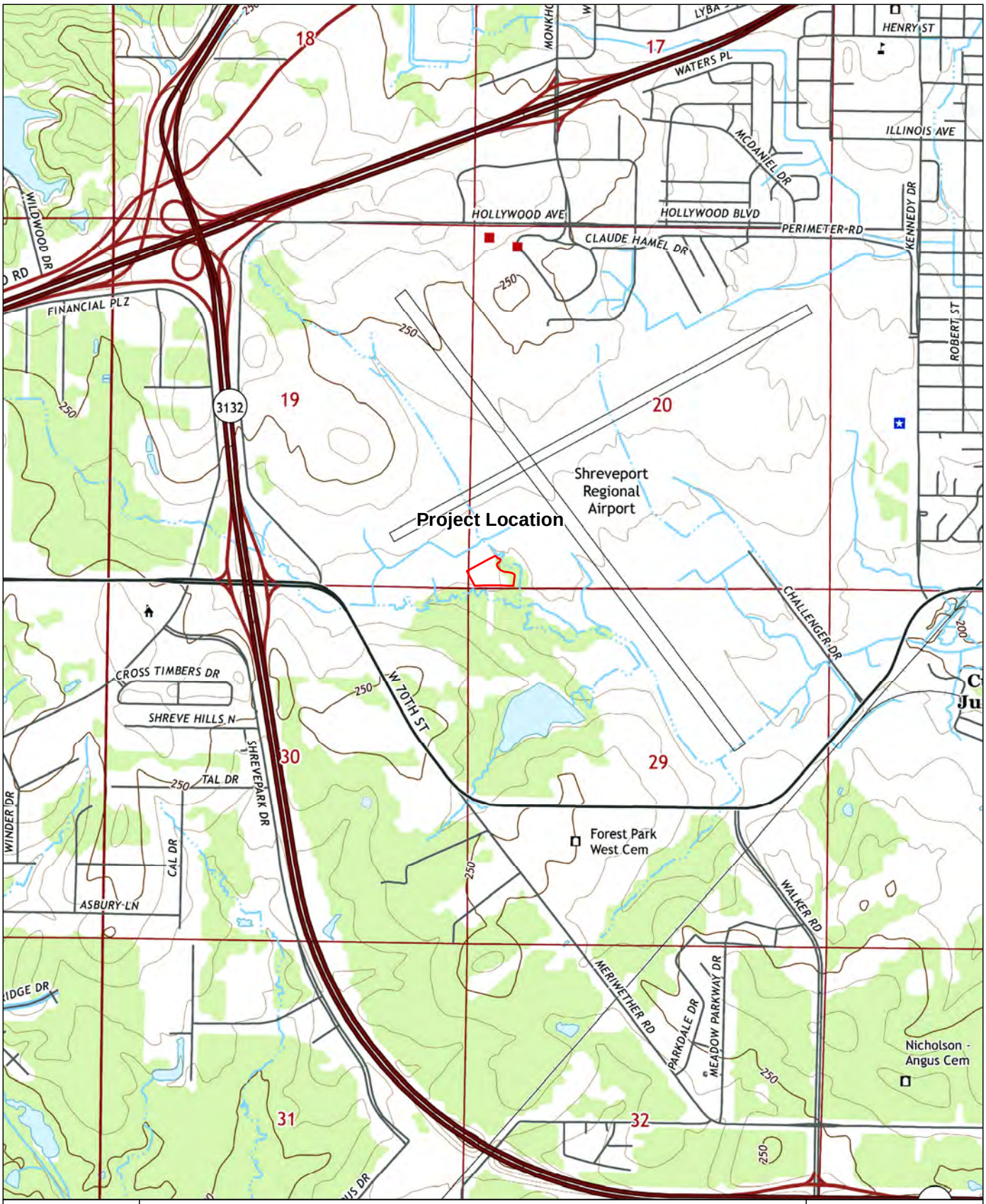

Figure 1
Topographic Features of the Proposed ATCT 3a Construction Area at the Shreveport Regional Airport in Caddo Parish, LA

N
W E
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0 1,000 2,000 4,000 6,000 8,000 Feet

KSA Engineers, Inc. Project Number: 050096.00	Date: 03/01/2024	Base Map: USGS 7.5 Minute Topographic Quadrangle: Shreveport West, LA (Published 2020)

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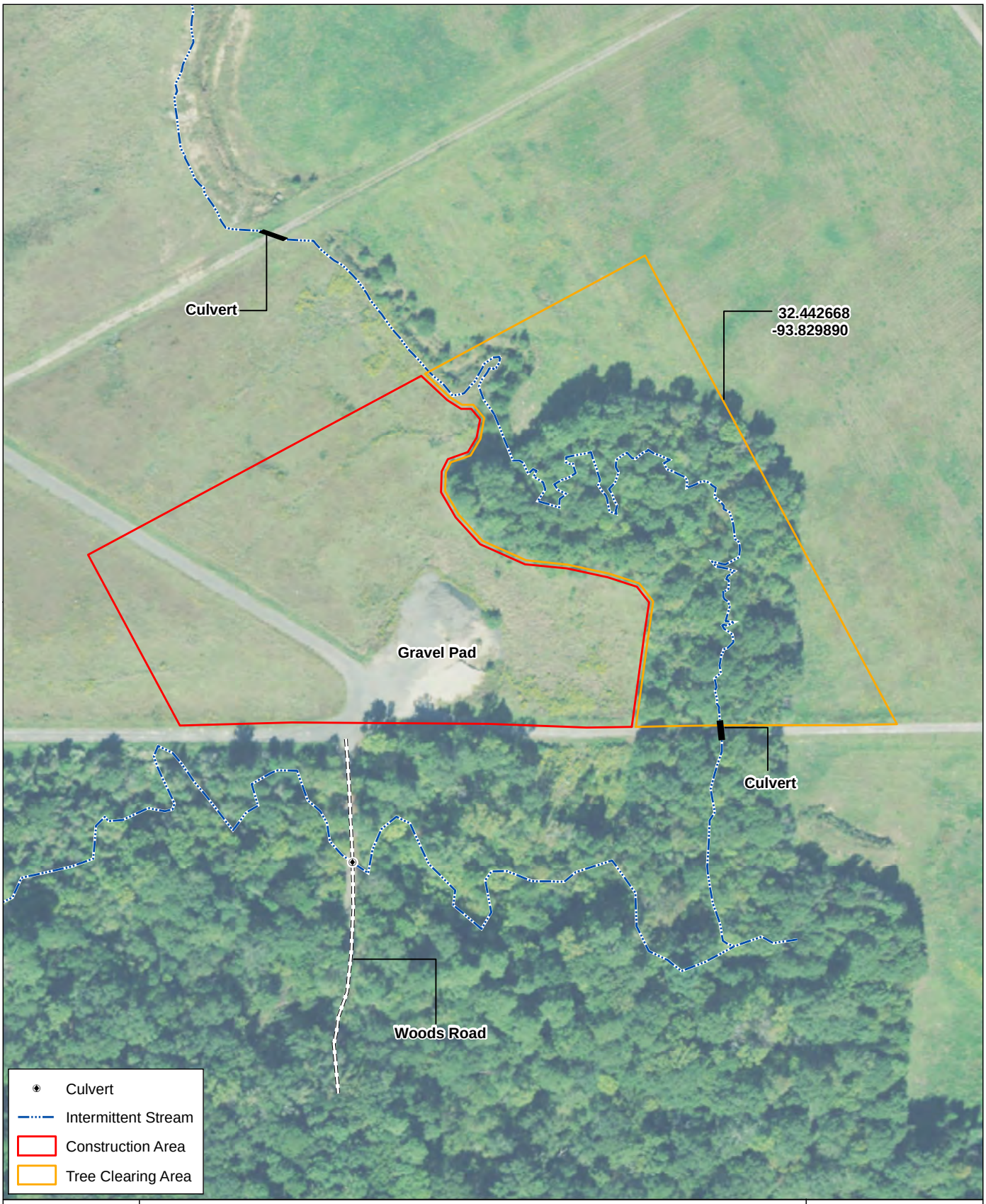

Figure 2
Aerial Photograph of the Proposed ATCT 3a Construction Area at the Shreveport Regional Airport in Caddo Parish, LA

N
W E
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0 50 100 200 300 400 500 600 700 Feet

KSA Engineers, Inc.
Project Number: 050096.00

Date: 03/01/2024

Base Map: NRCS Geospatial Data Gateway
2021 NAIP Aerial Imagery (Caddo Parish, LA)

SPHERE 3 ENVIRONMENTAL
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Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

Attachment B:

Project Photographs

Photograph: 1 **Date:** October 23, 2023 **Description:** View to the northeast within a typical open community.	

Photograph: 2 **Date:** October 23, 2023 **Description:** View to the northwest from the gravel pad within a typical open area..	

Photograph: 3 **Date:** October 23, 2023 **Description:** View to the north showing the intermittent stream within the eastern portion of the project area within the forested community.	
Photograph: 4 **Date:** October 23, 2023 **Description:** View to the northeast within the forested community.	

Attachment C:

USFWS IPaC Official T&E List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Phone: (337) 291-3100 Fax: (337) 291-3139

In Reply Refer To: 04/29/2024 20:59:43 UTC
Project Code: 2024-0083410
Project Name: Proposed ATCT 3a T&E Report

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and candidate species, as well as designated and proposed critical habitat that may occur within the boundary of your proposed project and may be affected by your proposed project. The Fish and Wildlife Service (Service) is providing this list under section 7 (c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Changes in this species list may occur due to new information from updated surveys, changes in species habitat, new listed species and other factors. Because of these possible changes, feel free to contact our office (337-291-3109) for more information or assistance regarding impacts to federally listed species. The Service recommends visiting the IPaC site or the Louisiana Ecological Services Field Office website (https://www.fws.gov/southeast/lafayette) at regular intervals during project planning and implementation for updated species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect Federally listed species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)).

Bald eagles have recovered and were removed from the List of Endangered and Threatened Species as of August 8, 2007. Although no longer listed, please be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668 et seq.).

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance", which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: https://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf

Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Onsite personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: https://www.fws.gov/southeast/our-services/eagle-technical-assistance/. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting any necessary consultation.

Activities that involve State-designated scenic streams and/or wetlands are regulated by the Louisiana Department of Wildlife and Fisheries and the U.S. Army Corps of Engineers, respectively. We, therefore, recommend that you contact those agencies to determine their interest in proposed projects in these areas.

Activities that would be located within a National Wildlife Refuge are regulated by the refuge staff. We, therefore, recommend that you contact them to determine their interest in proposed projects in these areas.

Additional information on Federal trust species in Louisiana can be obtained from the Louisiana Ecological Services website at: https://www.fws.gov/southeast/lafayette

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
(337) 291-3100

PROJECT SUMMARY

Project Code: 2024-0083410
Project Name: Proposed ATCT 3a T&E Report
Project Type: Airport - New Construction
Project Description: Client proposes to construct a new control tower at the Shreveport Regional Airport.
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@32.4429922,-93.83024422745041,14z

Counties: Caddo County, Louisiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ This species only needs to be considered if the project includes wind turbine operations. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

REPTILES

NAME	STATUS
Alligator Snapping Turtle *Macrochelys temminckii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

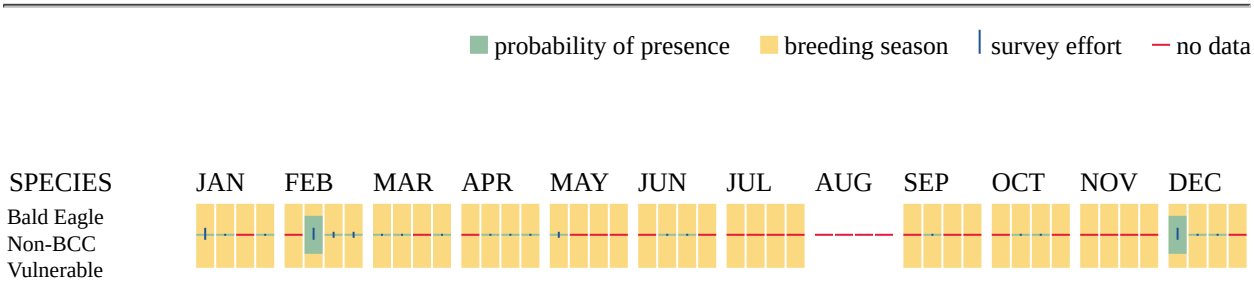
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bachman's Sparrow *Peucaea aestivalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6177	Breeds May 1 to Sep 30
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch *Sitta pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Southeastern American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4076	Breeds Apr 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

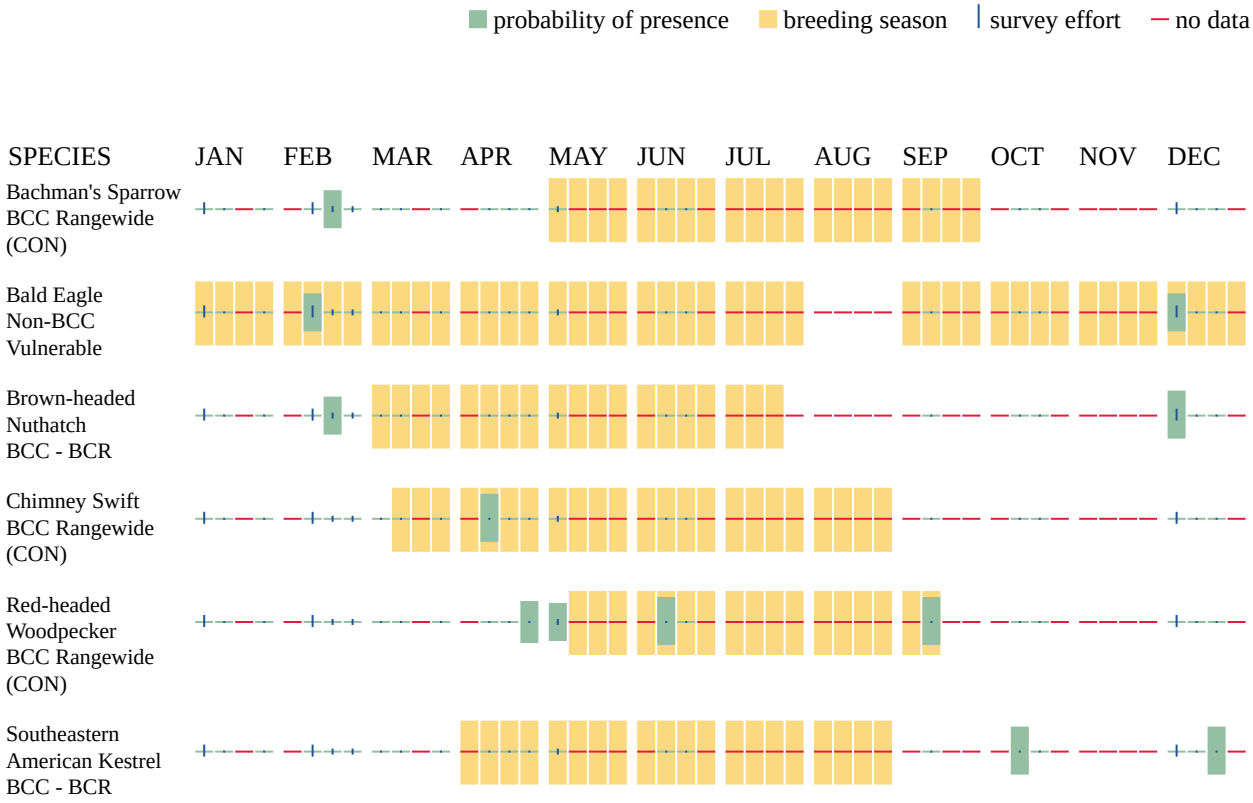
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



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- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: John Quine
Address: 1501 Bill Owens Parkway
City: Longview
State: TX
Zip: 75604
Email quine@sphere3env.com
Phone: 9032974673

APPENDIX B: WETLANDS ASSESSMENT

November 10, 2023 Project Number: 050103.00

Wetlands and Other Waters of the United States Assessment
Proposed ATCT 3a Project
Caddo Parish, Louisiana

Prepared for:
Shreveport Airport Authority
5103 Hollywood Ave.
Shreveport, LA 71109

Prepared by:
Sphere 3 Environmental, Inc.
1501 Bill Owens Parkway
Longview, Texas 75604
903-297-4673

INTRODUCTION

Sphere 3 Environmental, Inc. (Sphere 3) was retained by KSA Engineers, Inc. (KSA) to conduct an assessment of the proposed ATCT 3a Project at the Shreveport Regional Airport in Caddo Parish, Louisiana. John Quine, Sphere 3 Biologist, conducted a field survey to delineate wetlands and other waters of the United States on October 23 & 24, 2023. The proposed project area consists of approximately 13.77 acres including forested and open areas, airport service roads, and a graveled storage pad (Figures 1 and 2).

Two intermittent streams and one ephemeral stream are located within the project area. If any impacts occur within the streams, Section 404 permits from the United States Army Corps of Engineers (USACE) may be required.

SURVEY METHODS

Wetland delineation was conducted in accordance with the three-parameter approach outlined in Technical Report 10-20, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). The three-parameter approach was utilized to assess the site's vegetation, soils, and hydrology to determine the presence or absence of wetlands. Dominant species include flora that cumulatively total 50 percent of the areal coverage and any other single species accounting for at least 20 percent areal coverage within the plot. The wetland indicator status of each species was determined using the *Atlantic and Gulf Coastal Plain Region: 2020 Regional Wetland Plant List* (USFWS 2020) accessed online at the USACE's NWPL – National Wetland Plant List website. Munsell Soil Color Charts (2000 Revised Washable Edition) were used to identify the hue and chroma of soil samples.

Sphere 3 utilized Trimble's mapping grade GeoXT Global Positioning System (GPS) to map wetlands, streams, project boundaries, and other important features of the project. After field data collection was completed, the GPS data was exported into ESRI's ArcGIS Geographic Information System for impact analysis and map production.

EXISTING CONDITIONS

According to the Natural Resources Conservation Service's Web Soil Survey, the proposed project is located on Eastwood fine sandy loam, 5 to 15 percent slopes, Guyton-Iulus complex, 0 to 1 percent slopes, frequently flooded, and Metcalf-Timpson complex, 0 to 2 percent slopes.

Eight upland communities were documented within the project area. Data sheets for these upland communities are provided in Attachment C.

Intermittent Stream A

Approximately 1,495 linear feet of Intermittent Stream A is located both north and south of an airport service road. This stream has a bank width of approximately 15 to 20 feet with a water width of approximately 6 to 10 feet. The bed to bank depth is approximately 7 to 10 feet, and an ordinary high water mark (OHWM) is present at approximately 12 to 14 inches.

Intermittent Stream B

Approximately 910 linear feet of Intermittent Stream B is located south of the airport service road. This stream has a bank width ranging from approximately 15 to 20 feet with a water width of approximately 6 to 10 feet. Due to an unknown water depth, it was impossible to determine a bed to bank height and the height of the OHWM.

Ephemeral Stream

Approximately 116 linear feet of ephemeral stream is located west of the woods road and feeds into Intermittent Stream B. The ephemeral stream has a bank width of approximately 3 to 5 feet with a channel/water width of 1 to 5 feet. The bed to bank depth ranges from approximately 1 to 2 feet, and an OHWM is present at approximately 10 to 12 inches.

SUMMARY

Sphere 3 has surveyed the proposed ATCT 3a project area for wetlands and other waters of the United States. Two intermittent streams and one ephemeral stream are located within the project area. If any impacts occur within the streams, Section 404 permits from the USACE may be required.

LITERATURE CITED

National Wetland Plant List, version 3.5 http://wetland-plants.usace.army.mil; U.S. Army Corps of Engineers Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH.

Munsell Color X-Rite. 2000 Revised Washable Edition. *Munsell Soil Color Charts*. New Windsor, NY.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey Version 3.4.0. Available online at http://websoilsurvey.nrcs.usda.gov/. Date Last Modified July 31, 2019. Accessed October 25, 2023.

United States Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0),* ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

United States Fish and Wildlife Service. 2021. National Wetlands Inventory website. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C. https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper Date Last Modified May 1, 2021. Accessed October 30, 2023.

Attachment A:

Figures

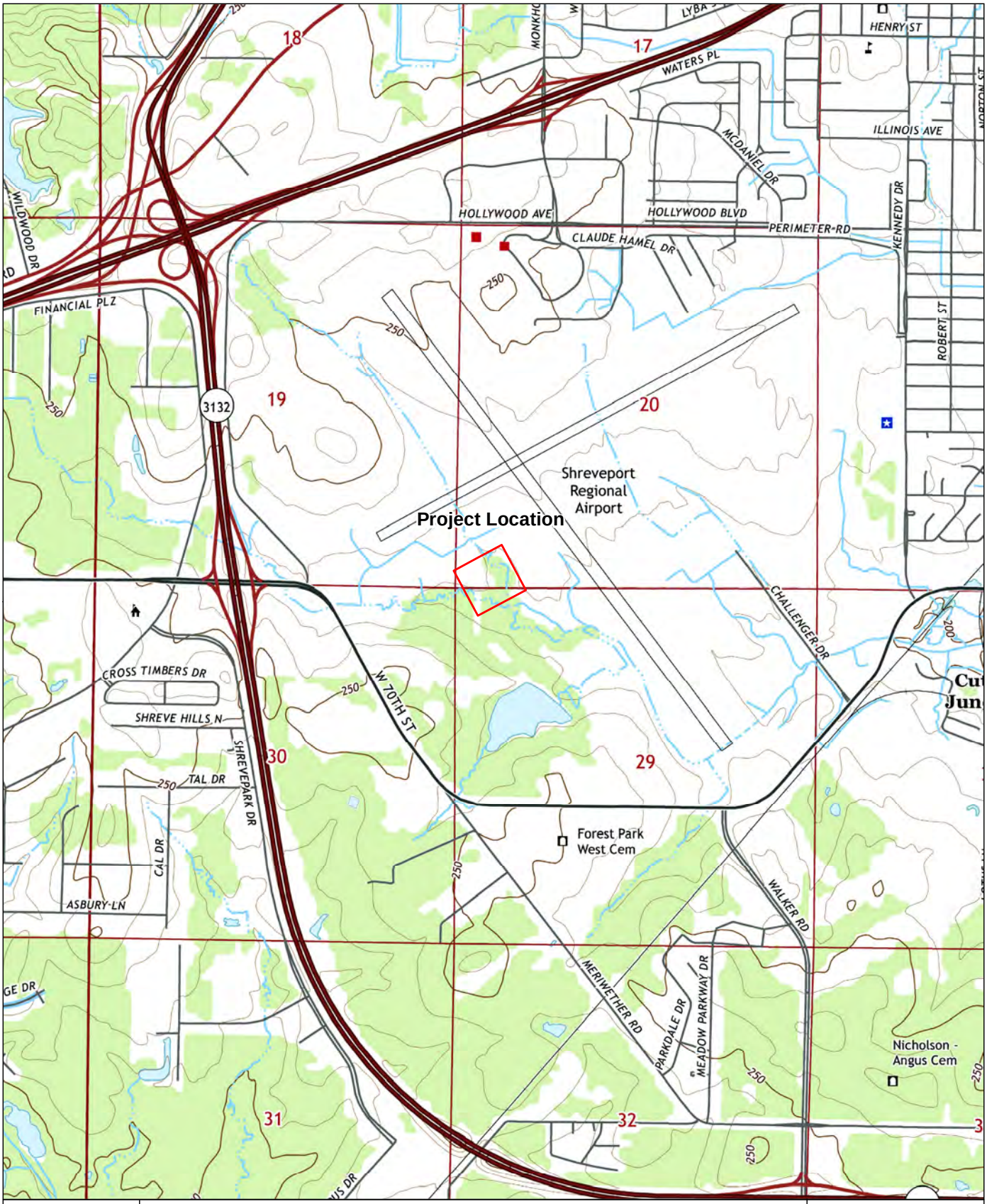

Figure 1
Topographic Features of the Proposed ATCT 3a at the Shreveport Regional Airport in Caddo Parish, LA

N
W E
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Feet
0 1,000 2,000 4,000 6,000 8,000

KSA Engineers, Inc. Project Number: 050103.00	Date: 10/27/2023	Base Map: USGS 7.5 Minute Topographic Quadrangle: Shreveport West, LA (Published 2020)

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1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

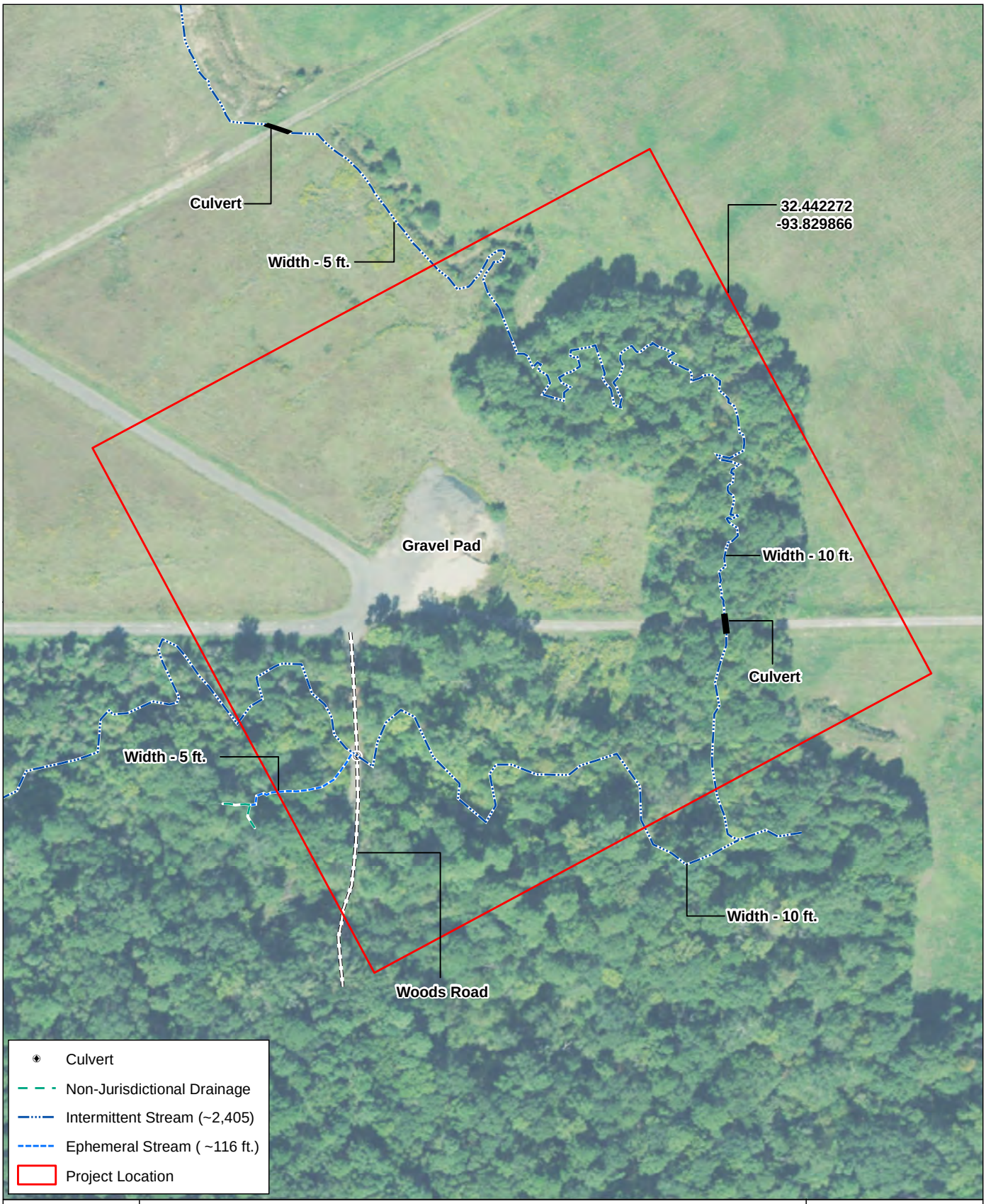

Figure 2
Aerial Photograph of the Proposed ATCT 3a at the Shreveport Regional Airport in Caddo Parish, LA

N
W E
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0 50 100 200 300 400 500 600 700 Feet

KSA Engineers, Inc.
Project Number: 050103.00

Date: 10/27/2023

Base Map: NRCS Geospatial Data Gateway
2021 NAIP Aerial Imagery (Caddo Parish, LA)

SPHERE 3 ENVIRONMENTAL
1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

Attachment B:

Site Photos

Photograph: 1 **Date:** October 23, 2023 **Description:** View to the east within Upland 1.	
Photograph: 2 **Date:** October 23, 2023 **Description:** View to the northeast within Upland 2 within maintained portions of the project area.	

Photograph: 3 **Date:** October 23, 2023 **Description:** View to the west within Upland 3.	

Photograph: 4 **Date:** October 23, 2023 **Description:** View to the north within Upland 4.	

Photograph: 5 **Date:** October 24, 2023 **Description:** Photo showing Upland 5.	

Photograph: 6 **Date:** October 24, 2023 **Description:** Photo showing Upland 6.	

Photograph: 7 **Date:** October 24, 2023 **Description:** Photo showing Upland 7.	

Photograph: 8 **Date:** October 24, 2023 **Description:** Photo of Upland 8.	

Photograph: 9 **Date:** October 23, 2023 **Description:** Photo of Intermittent Stream A north of the airport service road.	
Photograph: 10 **Date:** October 24, 2023 **Description:** Photo showing the confluence of Intermittent Streams A & B just south of the project area.	

Photograph: 11 **Date:** October 24, 2023 **Description:** Photo showing Intermittent Stream B east of the woods road.	

Photograph: 12 **Date:** October 24, 2023 **Description:** Photo showing Intermittent Stream B west of the woods road.	

Photograph: 13 **Date:** October 24, 2023 **Description:** Photo showing the ephemeral stream west of the woods road that feeds into Intermittent Stream B.	

Attachment C:

Data Sheets

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-23-23

Applicant/Owner: KSA State: LA Sampling Point: Up 1

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 20 T17NR14W

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR-P Lat: 32.44268013 Long: -93.82896135 Datum: NAD83

Soil Map Unit Name: Guyton-Iulus complex, 0-1% slopes, frequently flooded NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- Only one of the three criteria has been met. The sample point is not located within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is not present.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Up 1

Tree Stratum (Plot size: 20' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus nigra*	60	Yes	FAC
2. *Carya sp.*	20	Yes	FAC
3. *Ostrya virginiana*	5	No	FACU
4.			
5.			
6.			
	85 = Total Cover		
50% of total cover: 42.5	20% of total cover: 17		
Sapling Stratum (Plot size: 20' x 20')			
1. *Quercus nigra*	20	Yes	FAC
2. *Ostrya virginiana*	15	No	FACU
3.			
4.			
5.			
6.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Shrub Stratum (Plot size: 20' x 20')			
1. *Vaccinium arboreum*	5	Yes	FACU
2. *Callicarpa americana*	5	Yes	FACU
3.			
4.			
5.			
6.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Woody Vine Stratum (Plot size: 20' x 20')			
1. *Smilax rotundifolia*	15	Yes	FAC
2. *Vitis rotundifolia*	10	Yes	FAC
3.			
4.			
5.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

- Hydrophytic vegetation is present.

SOIL

Sampling Point: Up 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR5/6	100	---	---	---	---	fsl	Fine Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:

- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-23-23

Applicant/Owner: KSA State: LA Sampling Point: Up 2

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 20 T17NR14W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR-P Lat: 32.44338736 Long: -93.82950332 Datum: NAD83

Soil Map Unit Name: Guyton-Iulus complex, 0-1% slopes, frequently flooded NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- None of the three criteria have been met. The sample area is not located within a wetland.
- The sample area has been recently mowed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydryology is not present.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: Up 2

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 10' x 10')			
1. *Paspalum notatum*	85	Yes	FACU
2. *Cynodon dactylon*	5	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
50% of total cover: 45	20% of total cover: 18		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ___ No ✓

Remarks: (If observed, list morphological adaptations below).
- Hydrophytic vegetation is not present.

SOIL

Sampling Point: Up 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-8	7.5YR4/4	100	---	---	---	---	fsl	Fine Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-23-23

Applicant/Owner: KSA State: LA Sampling Point: Up 3

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 20 T17NR14W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%): 0-2

Subregion (LRR or MLRA): LRR-P Lat: 32.44230508 Long: -93.83093495 Datum: NAD83

Soil Map Unit Name: Metcalf-Timpson complex, 0-2% slopes NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- Only one of the three criteria has been met. The sample area is not located within a wetland.
- The sample area has been recently mowed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is not present.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: Up 3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 10' x 10')			
1. *Paspalum notatum*	90	Yes	FACU
2. *Nothoscordum bivalve*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
- Hydrophytic vegetation is present.

SOIL

Sampling Point: Up 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR4/3	100	---	---	---	---	FSL	Fine Sandy Loam
3-12	10YR5/4	65	10YR5/8	35	C	M	FSL	Fine Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-23-23

Applicant/Owner: KSA State: LA Sampling Point: Up 4

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 20 T17NR14W

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR-P Lat: 32.44234289 Long: -93.82968734 Datum: NAD83

Soil Map Unit Name: Metcalf-Timpson complex, 0-2% slopes NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- None of the three criteria have been met. The sample area is not located within a wetland.
- The sample area has been recently mowed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is not present.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Up 4

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 10' x 10')			
1. *Cynodon dactylon*	25	Yes	FACU
2. *Paspalum notatum*	25	Yes	FACU
3. *Polygonum sp.*	10	No	OBL
4. *Symphiotrichum divaricatum*	10	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Woody Vine Stratum (Plot size: 10' x 10')			
1. *Rubus trivialis*	10	Yes	FACU
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ___ No ✓

Remarks: (If observed, list morphological adaptations below).
- Hydrophytic vegetation is not present.

SOIL

Sampling Point: Up 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR3/2	100	---	---	---	---	fsl	Fine Sandy Loam
1-12	10YR4/4	70	10YR5/6	30	C	M	fsl	Fine Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-24-2023

Applicant/Owner: KSA State: LA Sampling Point: Up 5

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 29 T17NR14W

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR-P Lat: 32.44175164 Long: -93.82895016 Datum: NAD83

Soil Map Unit Name: Guyton-Iulus complex, 0-1% slopes, frequently flooded NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- Only one of the three criteria has been met. The sample area is not located within a wetland.
- Sample location is adjacent to an intermittent stream.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is not present.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Up 5

Tree Stratum (Plot size: 20' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus nigra*	60	Yes	FAC
2. *Liquidambar styraciflua*	25	Yes	FAC
3. *Acer rubrum*	10	No	FAC
4.			
5.			
6.			
	95 = Total Cover		
50% of total cover: 47.5	20% of total cover: 19		
Sapling Stratum (Plot size: 20' x 20')			
1. *Liquidambar styraciflua*	20	Yes	FAC
2. *Ostrya virginiana*	20	Yes	FACU
3.			
4.			
5.			
6.			
	40 = Total Cover		
50% of total cover: 20	20% of total cover: 8		
Shrub Stratum (Plot size: 20' x 20')			
1. *Ostrya virginiana*	10	Yes	FACU
2. *Callicarpa americana*	5	Yes	FACU
3.			
4.			
5.			
6.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 10' x 10')			
1. *Chasmanthium sessiliflorum*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Woody Vine Stratum (Plot size: 20' x 20')			
1. *Smilax rotundifolia*	10	Yes	FAC
2. *Vitis rotundifolia*	5	Yes	FAC
3.			
4.			
5.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).

- Hydrophytic vegetation is present.

SOIL

Sampling Point: Up 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR5/4	100	---	---	---	---	sl	Sandy Loam
2-12	10YR4/4	100	---	---	---	---	sl	Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-24-2023

Applicant/Owner: KSA State: LA Sampling Point: Up 6

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 29 T17NR14W

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): LRR-P Lat: 32.44184460 Long: -93.82956529 Datum: NAD83

Soil Map Unit Name: Guyton-Iulus complex, 0-1% slopes, frequently flooded NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

- Only two of the three criteria have been met. The sample area is not located within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✓ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is present.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Up 6

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 20' x 20')			
1. *Salix nigra*	25	Yes	OBL
2.			
3.			
4.			
5.			
6.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 20' x 20')			
1. *Typha sp.*	30	Yes	OBL
2. *Polygonum sp.*	5	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35 = Total Cover		
50% of total cover: 17.5	20% of total cover: 7		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
- Hydrophytic vegetation is present.

SOIL

Sampling Point: Up 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR4/4	60	7.5YR5/8	40	C	M	scl	Sandy Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-24-2023

Applicant/Owner: KSA State: LA Sampling Point: Up 7

Investigator(s): John Quine & Sydney Moore Section, Township, Range: See 29 T17NR14W

Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR-P Lat: 32.44188367 Long: -93.82942876 Datum: NAD83

Soil Map Unit Name: Guyton-Iulus complex, 0-1% slopes, frequently flooded NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- Only one of the three criteria has been met. The sample area is not located within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is not present.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: Up 7

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size: 10' x 10')			
1. *Salix nigra*	5	Yes	OBL
2.			
3.			
4.			
5.			
6.			
	5 = Total Cover		
50% of total cover: 2.5	20% of total cover: 1		
Shrub Stratum (Plot size: 10' x 10')			
1. *Baccharis halimifolia*	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	15 = Total Cover		
50% of total cover: 7.5	20% of total cover: 3		
Herb Stratum (Plot size: 10' x 10')			
1. *Solidago coanadensis*	65	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65 = Total Cover		
50% of total cover: 32.5	20% of total cover: 13		
Woody Vine Stratum (Plot size: 10' x 10')			
1. *Rubus argutus*	60	Yes	FAC
2.			
3.			
4.			
5.			
	60 = Total Cover		
50% of total cover: 30	20% of total cover: 12		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
- Hydrophytic vegetation is present.

SOIL

Sampling Point: Up 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR5/3	60	10YR5/8	40	C	M	scl	Sandy Clay Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Proposed ATCT 3a - Shreveport Regional Airport City/County: Caddo Sampling Date: 10-24-2023

Applicant/Owner: KSA State: LA Sampling Point: Up 8

Investigator(s): John Quine & Sydney Moore Section, Township, Range: Sec 29 T17NR14W

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR or MLRA): LRR-P Lat: 32.44179562 Long: -93.83093119 Datum: NAD83

Soil Map Unit Name: Guyton-lulus complex, 0-1%, frequently flooded NWI classification: Not mapped as wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

- Only one of the three criteria has been met. The sample area is not located within a wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): ---
Water Table Present?	Yes _____	No ✓	Depth (inches): ---
Saturation Present? (includes capillary fringe)	Yes _____	No ✓	Depth (inches): ---

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

- Wetland hydrology is not present.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: Up 8

Tree Stratum (Plot size: 20' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus nigra*	50	Yes	FAC
2. *Maclura pomifera*	20	Yes	FACU
3.			
4.			
5.			
6.			
	70 = Total Cover		
50% of total cover: 35	20% of total cover: 14		
Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	= Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size: 20' x 20')			
1. *Ligustrum sinense*	30	Yes	FACU
2.			
3.			
4.			
5.			
6.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		
Herb Stratum (Plot size: 10' x 10')			
1. *Chasmanthium latifolium*	25	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
50% of total cover: 12.5	20% of total cover: 5		
Woody Vine Stratum (Plot size: 10' x 10')			
1. *Smilax rotundifolia*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
50% of total cover: 5	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? Yes ✓ No ___

Remarks: (If observed, list morphological adaptations below).
- Hydrophytic vegetation is present.

SOIL

Sampling Point: Up 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR5/4	70	5YR5/8	30	C	M	fsl	Fine Sandy Loam
6-12	10YR4/3	60	7.5YR5/6	40	C	M	fsl	Fine Sandy Loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Organic Bodies (A6) **(LRR P, T, U)**
___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
___ Muck Presence (A8) **(LRR U)**
___ 1 cm Muck (A9) **(LRR P, T)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Coast Prairie Redox (A16) **(MLRA 150A)**
___ Sandy Mucky Mineral (S1) **(LRR O, S)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR P, S, T, U)**
___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
___ Thin Dark Surface (S9) **(LRR S, T, U)**
___ Loamy Mucky Mineral (F1) **(LRR O)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Marl (F10) **(LRR U)**
___ Depleted Ochric (F11) **(MLRA 151)**
___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
___ Umbric Surface (F13) **(LRR P, T, U)**
___ Delta Ochric (F17) **(MLRA 151)**
___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRR O)**
___ 2 cm Muck (A10) **(LRR S)**
___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✓

Remarks:
- Hydric soil is not present.

APPENDIX C: AGENCY AND PUBLIC INVOLVEMENT

(RESERVED)

January 18, 2024

Louisiana Department of Natural Resources
Sent via website: https://sonlite.dnr.state.la.us/sundown/cart_prod/pkg_dnr_wf.initiate

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Air Traffic Control Tower Relocation (ATCT)
Shreveport, LA

Dear Sir or Madam:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts associated with the relocation of the ATCT at SHV.

The Airport plans to relocate the ATCT to the southern portion of the airfield, to the west of Runway 14-32 and south of Runway 6-24 (please see attached Exhibit 2.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft.

The Department of Natural Resources requested that we contact your office to determine if you have any interest in these potential sites. In order to identify potential environmental issues that should be considered as we develop this plan, we are soliciting views from your group for impacts to threatened and endangered species, air and water quality issues, wetlands, and cultural resources. Your review of this planning process and the potential impact(s) (if any) associated with development at the Airport on the resource under your purview would be greatly appreciated.

To familiarize you with the existing conditions and location of the Airport, please find enclosed an excerpt drawing from the US Geologic Survey Quadrangle Mapping and an aerial view of the facility with major features labeled, as they exist today.

We request that you review this site and the planning process as it affects you and provide us with any comments within 30 days of receipt of this letter. If no response is received after this time period, we will assume you have no concerns with potential development at the Airport.

Please send your responses to me at:

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

Should you have any questions, or require additional information, please feel free to call me at (504) 330-7035. Thank you.

Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
Aerial view of the project area

JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

01/25/2024

SHREVEPORT REGIONAL AIRPORT
5103 HOLLYWOOD AVENUE
SHREVEORT, LA 71109
Attn: Larry Blackwell

RE: P20240051, Solicitation of Views
KUTCHINS & GROH, LLC
Description: The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The Airport plans to relocate the ATCT to the southwestern quadrant of the airfield, to the west of Runway 14-32 and south of Runway 6-24 (please see attached Exhibit 2.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft.
Location: Lat 32-26-32.33N, Long 93-49-46.27W; 5103 Hollywood Avenue Shreveport, 71109
Caddo Parish, LA

Dear Larry Blackwell:

You are hereby advised that your application for a Coastal Use Permit (CUP) has been determined to be administratively complete and review by the State for compliance with the Louisiana Coastal Resource Program (LCRP) and consistency with the federal Coastal Zone Management Act (CZMA) has begun. Additionally, it has been determined that your proposed activity is a use of state concern in accordance with Louisiana Revised Statute 49:214.25.

All correspondence and calls regarding this application should reference the Coastal Use Permit Number (P#) indicated above. Please note that all information concerning your application is in our database and is updated throughout the day as changes to the status of the application occur.
Your application can be found on our Webpage.

Should you have any questions, please check the online database or contact the assigned permit analyst: Autumn Pollard at (225) 342-7472 or autumn.pollard@la.gov. Be sure to reference the above Coastal Use Permit Number.

Sincerely,

ND

Permit Coordinator

cc: Martin Mayer, COE

KUTCHINS & GROH, LLC

JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

01/25/2024

SHREVEPORT REGIONAL AIRPORT
5103 HOLLYWOOD AVENUE
SHREVEORT, LA 71109
Attn: Larry Blackwell

RE: P20240051, Solicitation of Views
SHREVEPORT REGIONAL AIRPORT
Description: The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT). Proposal to relocate the ATCT to the southwestern quadrant of the airfield, to the west of Runway 14-32 and south of Runway 6-24. There are 3 sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approx. 9,000 sq. ft., and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft.
Location: Lat 32-26-32.33N, Long 93-49-46.27W; Shreveport, LA.
Caddo Parish, LA

Dear Larry Blackwell:

We have received your Solicitation of Views for the above referenced project, which has been found to be outside the Louisiana Coastal Zone. Therefore, pursuant to the provisions of LA R.S. 49:214.25.E, a Coastal Use Permit will not be required.

This determination is valid for two (2) years from the date of this letter. If the proposed activity is not initiated within this 2-year period, this determination will expire and the applicant will be required to submit a new application. Please note that your solicitation packet has not been forwarded to the USACE, or any other agency outside of OCM and the Parish local coastal program. If you would like a determination from other regulatory and/or resource agency(ies) regarding this project, please submit your request directly to that/those agency(ies) from which you would like a determination.

This determination has been made on the basis of information provided by your application. If it is later established that you furnished erroneous data, you may be directed to alter or modify your plans, to remove structures you have installed, and/or to restore the work area to pre-project conditions at your own expense. If it is established that you knowingly furnished erroneous data, you could also be subject to legal action.

The drawings submitted with your referenced application are attached hereto and made a part of the record. If you have any questions regarding this authorization, please contact our office at (225) 342-7591 or (800) 267-4019.

Sincerely,

Kyle F. Balkum
Administrator

Kyle F. Balkum/ap

Attachments

Final Plats:

1) P20240051 Final Plats 01/25/2024

cc: Jordan Cobbs, OCM w/plats

Caddo Parish w/plats

KUTCHINS & GROH, LLC w/plats

From: Office of Coastal Management
To: LARRY.BLACKWELL@SHREVEPORTLA.GOV; LISA@KUTCHINS-GROH.COM
Subject: P20240051 - Joint Permit Application Received
Date: Thursday, January 18, 2024 4:43:17 PM

If you would like to respond, provide comment or contact someone about this application please click the OCM Analyst name below to send an email to the permit analyst, use the "Make Comments" link below to post a comment to the administrative record or call the OCM Analyst at 225-342-7591 or 800-267-4019. Be sure to reference your P# as found in the subject of this email. Do not use the "reply" button to respond to this email as this account is not monitored for incoming messages.

Coastal Use Permit Application Information

Applicant:	KUTCHINS & GROH, LLC
Project:	Shreveport Regional Airport Air Traffic Control Tower Relocation (ATCT)
Project Parish(es):	CADDO

OCM Analyst:	()
Preliminary Determination:	
Application Modification:	N/A

Thank you for using Office of Coastal Management's on-line application process. Your application has been received and has been assigned the following number: **P20240051**

You will be contacted within 5 business days regarding the status of your application. You may also follow the progress of your application on-line at:

Item Tracking (text)
Application
Make Comments

January 30, 2024

Vicksburg District, U. S. Army Corps of Engineers
USACE Protection & Restoration Office
4155 Clay Street
Vicksburg, MS 39183
Sent via email: mvk404408@usace.army.mil

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Air Traffic Control Tower Relocation (ATCT)
Shreveport, LA

Dear Sir or Madam:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts associated with the relocation of the ATCT at SHV.

The Airport plans to relocate the ATCT to the southern portion of the airfield, to the west of Runway 14-32 and south of Runway 6-24 (please see attached exhibits.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft.

The Department of Natural Resources requested that we contact your office to determine if you have any interest in these potential sites. In order to identify potential environmental issues that should be considered as we develop this plan, we are soliciting views from your group for impacts to threatened and endangered species, air and water quality issues, wetlands, and cultural resources. Your review of this planning process and the potential impact(s) (if any) associated with development at the Airport on the resource under your purview would be greatly appreciated.

To familiarize you with the existing conditions and location of the Airport, please find enclosed an excerpt drawing from the US Geologic Survey Quadrangle Mapping and an aerial view of the facility with major features labeled, as they exist today.

We request that you review this site and the planning process as it affects you and provide us with any comments within 30 days of receipt of this letter. If no response is received after this time period, we will assume you have no concerns with this potential development at the Airport.

Please send your responses to me at:

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

Should you have any questions, or require additional information, please feel free to call me at (504) 330-7035. Thank you.

Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

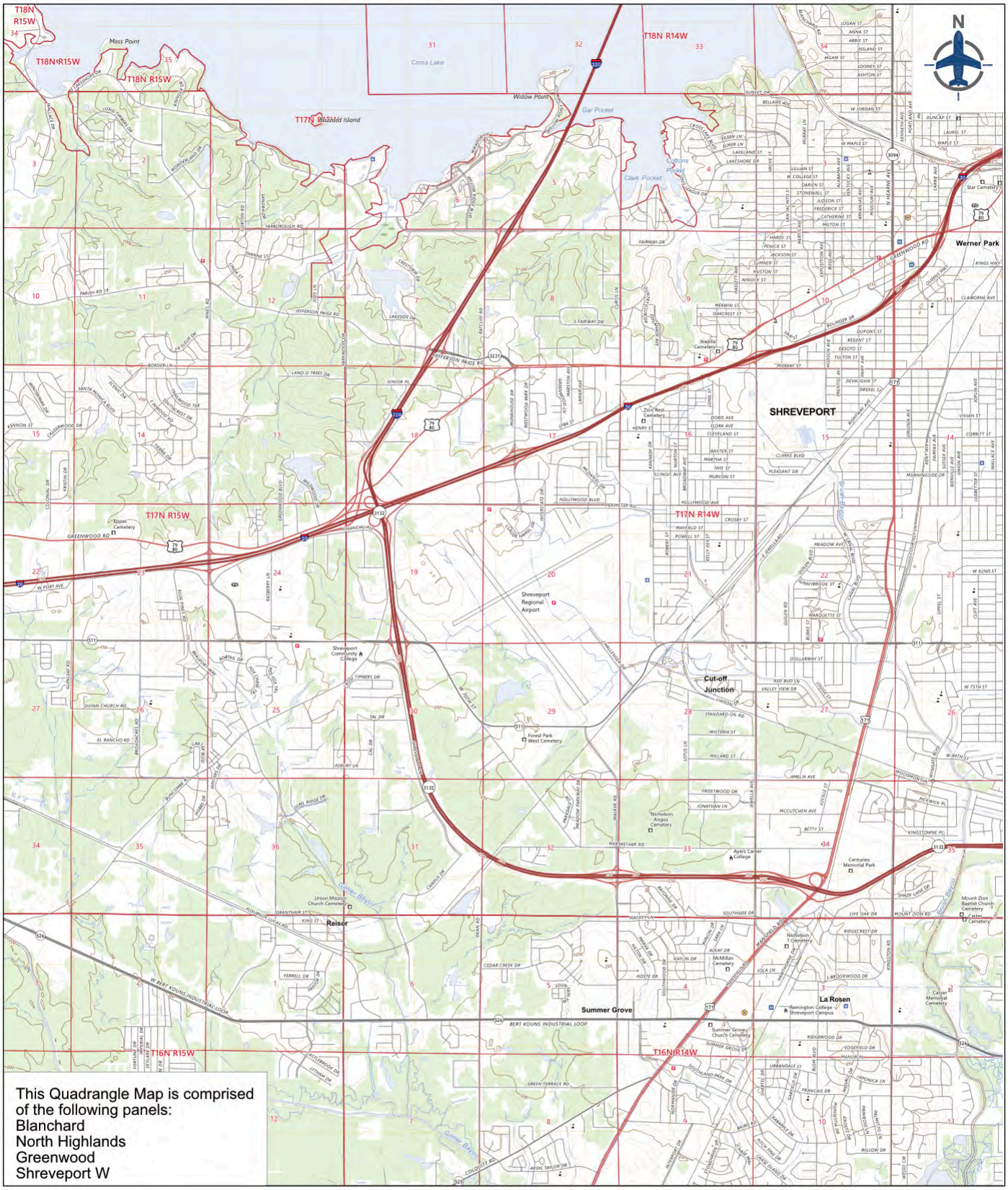
cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
Aerial view of the project area

EXHIBIT 1

SHREVEPORT REGIONAL AIRPORT

JANUARY 2024



This Quadrangle Map is comprised of the following panels:
Blanchard
North Highlands
Greenwood
Shreveport W

SHV USGS Quad Map

0 NTS NTS

Not to Scale

Kutchins & Groh

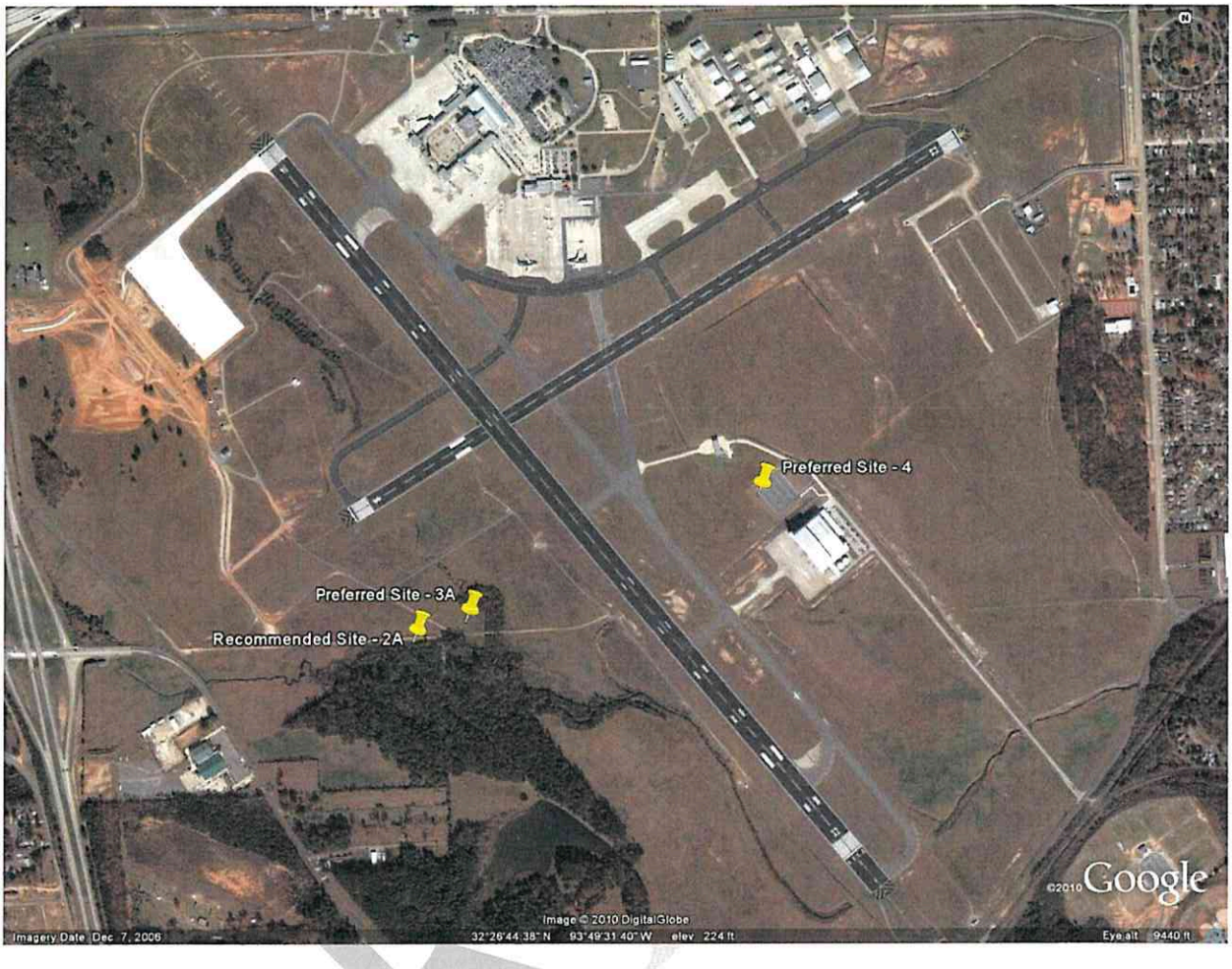

Preferred Site - 4
Preferred Site - 3A
Recommended Site - 2A
©2010 Google
Image © 2010 DigitalGlobe
Imagery Date: Dec 7, 2006
32°26'44.38" N 93°49'31.40" W elev 224 ft
Eye alt 9440 ft

Figure 3 – Location of the three preferred sites during the AFTIL Trip 2

DRAFT

From: lisa@kutchins-groh.com
To: "Jeremy.e.stokes@usace.army.mil"
Subject: FW: for review and comment - SOV Request for Shreveport Regional Airport ATCT Relocation Project
Date: Thursday, February 1, 2024 10:49:00 AM
Attachments: COE ltr 1-30-24.pdf

Good morning, Jeremy. My firm is looking for an SOV response for a project we are working on at the Shreveport Regional Airport (please see email below and the attached letter/exhibits.)

We normally deal with the New Orleans District office and one of my contacts there told me to send the SOV request to the address mvk404408@usace.army.mil so the email below was sent on 1-30-24. My contact in New Orleans then came back and said that you might the person to handle this.

So I apologize if this causes any confusion. Please let me know if you need any additional information from me. Thank you. - Lisa

Lisa Lawson, RLA
Project Manager, Kutchins & Groh, LLC
(504) 330-7035 lisa@kutchins-groh.com
www.kutchins-groh.com
400 Poydras St., Suite 1380, New Orleans, LA 70130

From: lisa@kutchins-groh.com <lisa@kutchins-groh.com>
Sent: Tuesday, January 30, 2024 11:46 AM
To: mvk404408@usace.army.mil
Subject: for review and comment - SOV Request for Shreveport Regional Airport ATCT Relocation Project

Good morning. Kutchins & Groh is working with the Shreveport Regional Airport to prepare an Environmental Assessment for the relocation of the Airport Traffic Control Tower. There are 3 site locations under consideration, all located on the airfield. I am requesting the Corps' review of the attached letter and exhibits to determine if your office has any concerns with this airport development project. Thank you. - Lisa

Lisa Lawson, RLA
Project Manager, Kutchins & Groh, LLC
(504) 330-7035 lisa@kutchins-groh.com
www.kutchins-groh.com
400 Poydras St., Suite 1380, New Orleans, LA 70130

From:	Bryan, Mary O CIV USARMY CEMVK (USA)
To:	lisa@kutchins-groh.com
Subject:	Kutchins & Groh, LLC, SOV Request for the Proposed Shreveport Regional Airport Air Traffic Control Tower Relocation, Caddo Parish, Louisiana
Date:	Friday, February 2, 2024 6:22:42 PM

February 2, 2024

SUBJECT: Kutchins & Groh, LLC, SOV Request for the Proposed Shreveport Regional Airport Air Traffic Control Tower Relocation, Caddo Parish, Louisiana

Ms. Lisa Lawson
Project Manager
Kutchins and Groh, LLC
400 Poydras Street
Suite 1380
New Orleans, Louisiana 70130

Dear Ms. Lawson:

We received your correspondence, subject as above, on February 01, 2024. For ease of reference, we have assigned your correspondence identification number as **MVK-2024-0072**. Please refer to this number should you write or call us about your request.

Additionally, your request is currently in the process of being assigned to one of our project managers. Once the assignment is made, you will receive another email including your project manager's name and contact information. The project manager will be your primary contact and will be available to answer any questions and to guide you through our various Regulatory processes.

Sincerely,

Mary Bryan
Regulatory Support Assistant
CEMVK-RD-L
Mary.O.Bryan@usace.army.mil

From:	Bryan, Mary O CIV USARMY CEMVK (USA)
To:	lisa@kutchins-groh.com
Cc:	Breeden, Jacob E III CIV (USA)
Subject:	MVK-2024-72, Kutchins & Groh, LLC, SOV Request for Proposed Shreveport Regional Airport Air Traffic Control Tower Relocation, Caddo Parish, Louisiana
Date:	Friday, February 9, 2024 10:05:56 AM

February 09, 2024

SUBJECT: Kutchins & Groh, LLC, SOV Request for Proposed Shreveport Regional Airport Air Traffic Control Tower Relocation, Caddo Parish, Louisiana

The Vicksburg District Regulatory Division is committed to providing quality and timely service to our customers. As part of this service, we are furnishing the name and contact information of the Project Manager who is working on your request.

If you have any questions or need further information concerning the Regulatory process, please feel free to contact the Project Manager below or visit our web site at: www.mvk.usace.army.mil/Missions/Regulatory.aspx .

PROJECT ID NUMBER: **MVK-2024-72**

PROJECT MANAGER: **Mr. Jacob Breeden**
Jacob.E.Breeden@usace.army.mil
601-631-5271

From:	Breeden, Jacob E III CIV (USA)
To:	lisa@kutchins-groh.com
Subject:	MVK-2024-072: Request for Proposed Shreveport Regional Airport Air Traffic Control Tower Relocation, Caddo Parish, Louisiana
Date:	Monday, June 17, 2024 9:22:58 AM
Attachments:	Enclosure 1.pdf

Ms. Lisa Lawson
Kutchins & Groh, LLC
400 Poydras St.
New Orleans, Louisiana 70130

Dear Ms. Kutchins:

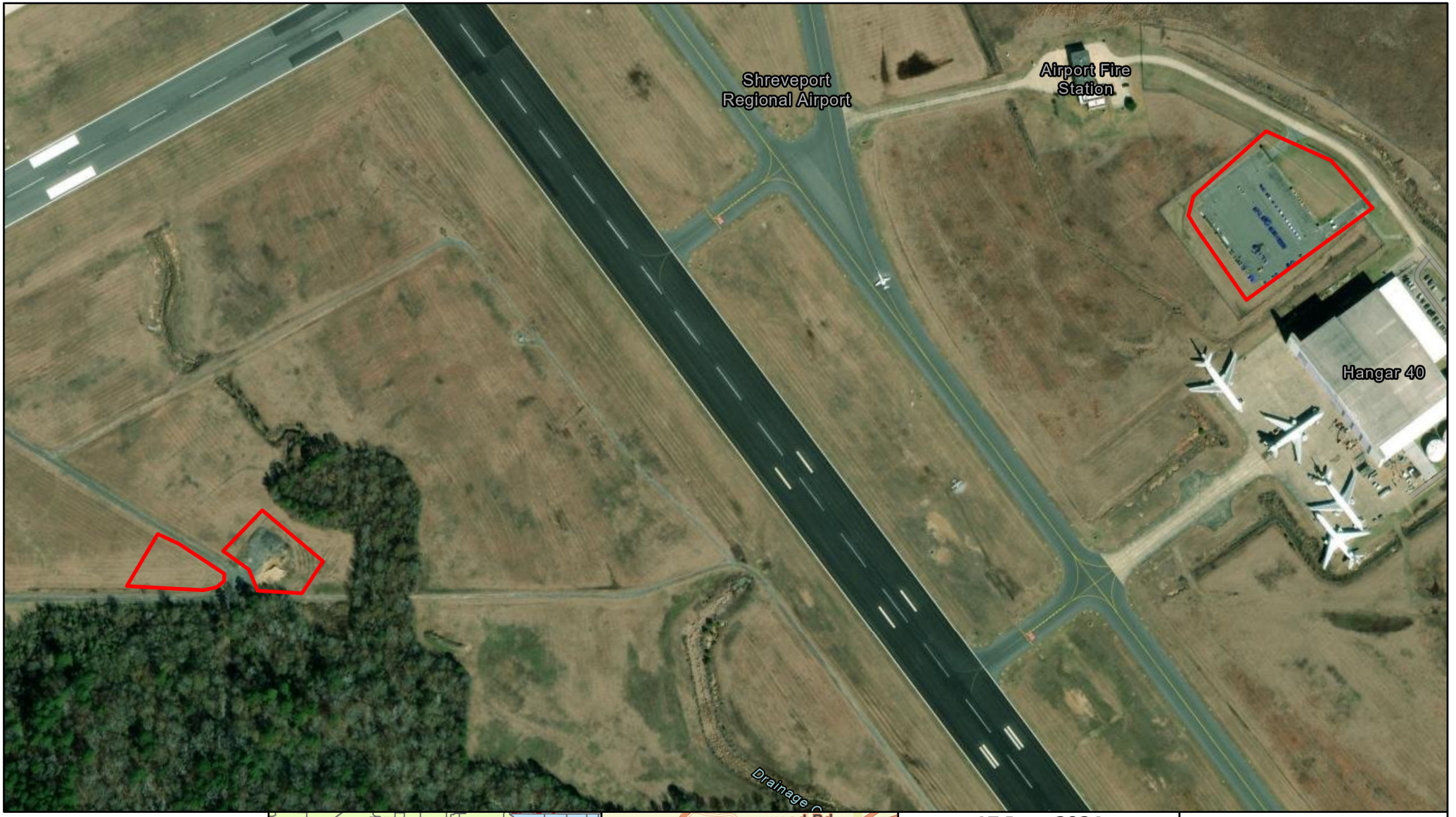
This letter is in response to your request for review of possible regulatory requirements for the proposed air traffic control tower relocation in Caddo Parish, Louisiana.

Based upon the information furnished (enclosure), it appears that Department of the Army permit requirements, pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act, will not be required for the proposed work, since no regulated activities will occur in any potentially jurisdictional wetlands and/or other waters of the United States. This applies only to the areas outlined in the attached document and would not include any potential roads or infrastructure required at those locations. In the event that project plans are changed, or if you anticipate any additional construction, please contact this office for a reevaluation of permit requirements and refer to identification No. MVK-2024-72 when submitting the information. In addition, we are not addressing geographic jurisdiction for this non-regulated activity.

This determination of Department of the Army regulatory requirements does not convey any property rights, either in real estate or material or any exclusive privileges and does not authorize any injury to property or invasion of rights or local laws or regulations or obviate the requirement to obtain State or local assent required by law for the activity discussed herein.

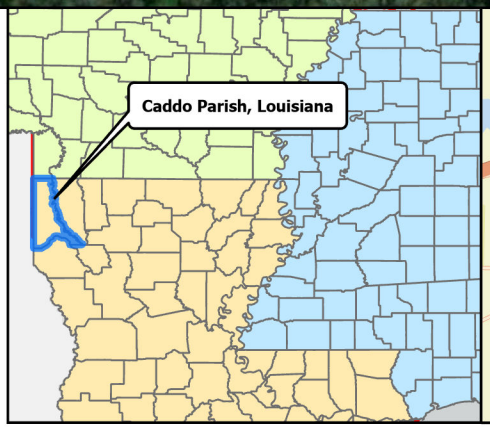
If we may be of any further assistance in this matter, please contact Mr. Jacob Breeden, of this office, telephone 601-631-5271, or e-mail address: Jacob.e.breeden@usace.army.mil.

Jacob Breeden
Environmental Specialist
(601)631-5271
Jacob.E.Breeden@usace.army.mil



Legend

Project Boundary



17 June 2024

MVK-2024-72

Request for Proposed Shreveport Regional Airport Air Traffic Control Tower Relocation, Caddo Parish, Louisiana

Wetland Delineation

Prepared by
Jacob Breeden

US Army Corps of Engineers®

N

Regulatory Division

Enforcement and Compliance Branch

0 270 540 Feet

CITY OF SHREVEPORT
P.O. BOX 31109 SHREVEPORT, LA 71130 • 505 TRAVIS STREET SHREVEPORT, LA 71101
Website: www.shreveportla.gov

May 24, 2024

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

RE: Solicitation of Views for Shreveport Regional Airport (SHV)
Air Traffic Control Tower Relocation (ATCT), Shreveport, LA

Dear Ms. Lawson:

The City of Shreveport Department of Public Works Engineering Division has concluded its review of the proposed site for the ATCT. Based on the information provided, it does appear that the proposed location for the ATCT does lie within the 100-year floodplain. Please refer to Chapter 34 of the City of Shreveport Code of Ordinances to ensure all requirements and provisions set forth are satisfied. This includes but is not limited to providing provisions for stormwater detention (**Sec 34-94**) as well as design requirements for structures located within the floodplain (**Sec 34-67**). **Furthermore, our office requests that we are included in the review of all preliminary and final plans for this project, to ensure that the location and design satisfies all requirements set forth by FEMA as well as the City of Shreveport Code of Ordinances**. If you have any questions, please feel free to call 318-673-6000.

Sincerely,

Thomas Jenkins, P.E.
Assistant City Engineer

Department of Public Works Engineering Division
Phone: 318-673-6000
Office of the City Engineer
Fax: 318-673-6004
P. O. Box 31109, Shreveport, LA 71130
e-mail:Thomas.Jenkins@shreveportla.gov

January 30, 2024

Linda Hardy, SOV Program Manager
Louisiana Department of Environmental Quality
602 North Fifth Street
10th Floor
Baton Rouge, LA 70802
Sent via email: SOVs@LA.GOV

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Airport Traffic Control Tower (ATCT) Relocation
Shreveport, LA

Dear Linda:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts associated with the relocation of the ATCT at SHV.

The Airport plans to relocate the ATCT to the southern portion of the airfield, to the west of Runway 14-32 and south of Runway 6-24 (please see attached Exhibit 2.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft.

The Department of Natural Resources requested that we contact your office to determine if you have any interest in these potential sites. In order to identify potential environmental issues that should be considered as we develop this plan, we are soliciting views from your group for impacts to threatened and endangered species, air and water quality issues, wetlands, and cultural resources. Your review of this planning process and the potential impact(s) (if any) associated with development at the Airport on the resource under your purview would be greatly appreciated.

To familiarize you with the existing conditions and location of the Airport, please find enclosed an excerpt drawing from the US Geologic Survey Quadrangle Mapping and an aerial view of the facility with major features labeled, as they exist today.

We request that you review this site and the planning process as it affects you and provide us with any comments within 30 days of receipt of this letter. If no response is received after this time period, we will assume you have no concerns with potential development at the Airport.

Please send your responses to me at:

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

Should you have any questions, or require additional information, please feel free to call me at (504) 330-7035. Thank you.

Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

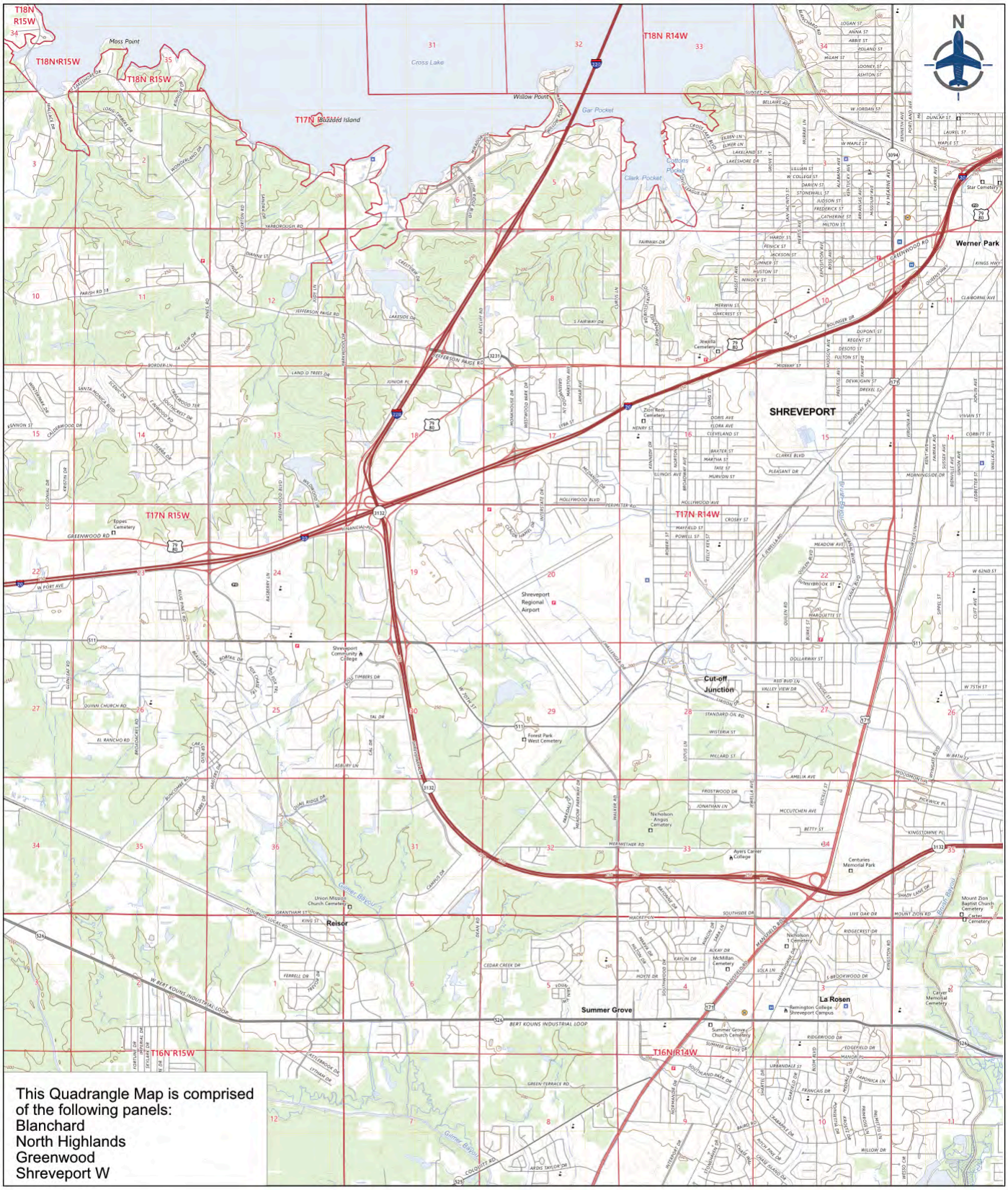
cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
Aerial view of the project area

EXHIBIT 1

SHREVEPORT REGIONAL AIRPORT

JANUARY 2024



This Quadrangle Map is comprised of the following panels:
Blanchard
North Highlands
Greenwood
Shreveport W

SHV USGS Quad Map

0 NTS NTS

Not to Scale

Kutchins & Groh

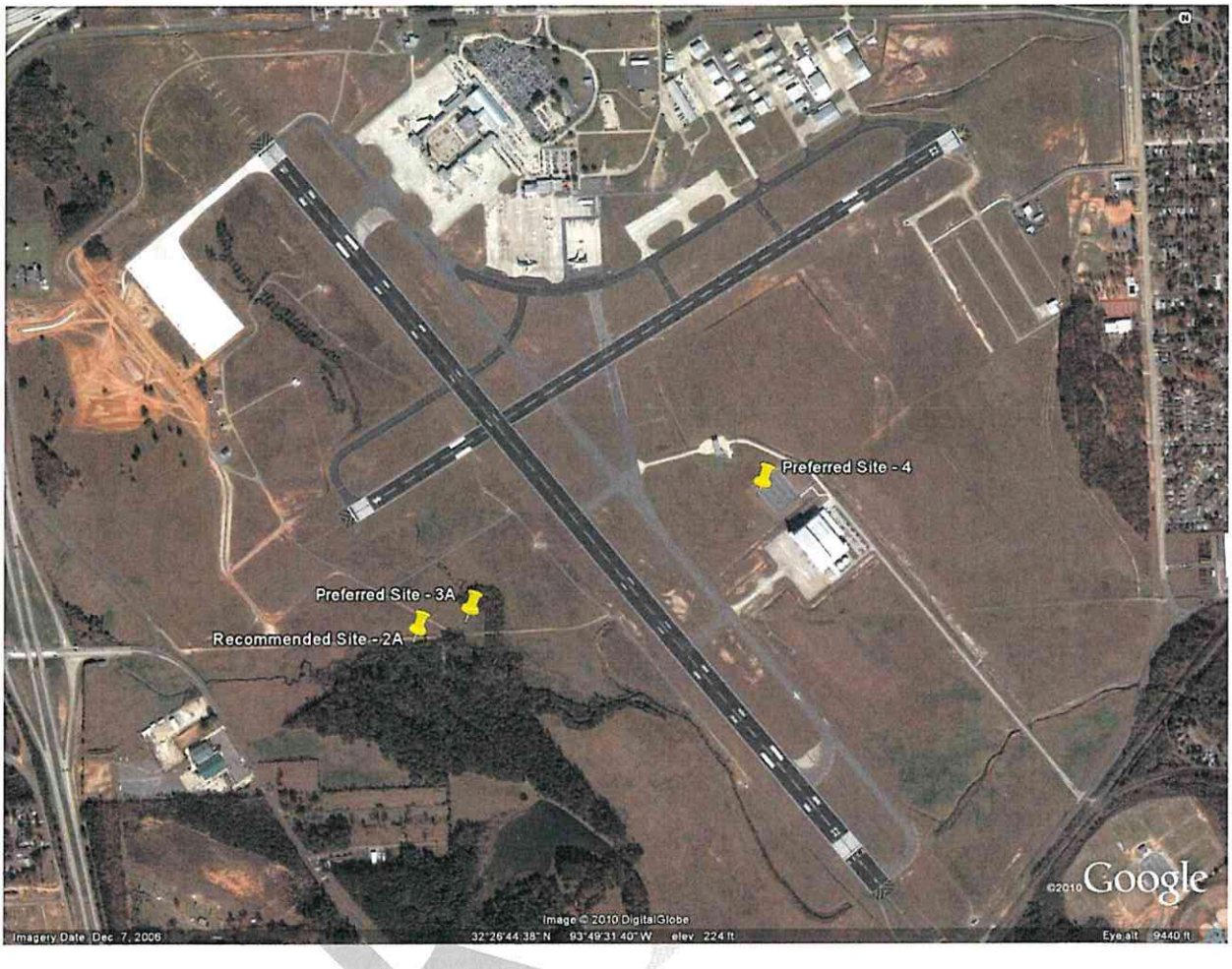

Preferred Site - 4
Preferred Site - 3A
Recommended Site - 2A
©2010 Google
Image © 2010 DigitalGlobe
Imagery Date: Dec 7, 2006
32°26'44.38" N 93°49'31.40" W elev 224 ft
Eye alt 9440 ft

Figure 3 – Location of the three preferred sites during the AFTIL Trip 2

DRAFT

From: DEQ SOV
To: lisa@kutchins-groh.com
Subject: RE: for review and comment - SOV Request for Shreveport Regional Airport ATCT Relocation Project
Date: Tuesday, January 30, 2024 12:31:02 PM

Thank you. This is confirmation that your SOV document has been received on 1/30/2024.

Best,

Marissa Jimenez
Environmental Scientist Manager
LDEQ Office of the Secretary
Outreach and Small Business Assistance
225-219-3963 • marissa.jimenez@la.gov

From: lisa@kutchins-groh.com <lisa@kutchins-groh.com>
Sent: Tuesday, January 30, 2024 10:50 AM
To: DEQ SOV <DEQSOV@LA.GOV>
Subject: for review and comment - SOV Request for Shreveport Regional Airport ATCT Relocation Project

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Please find attached a Solicitation of Views request and 2 exhibits that illustrate the 3 potential site locations for the Shreveport Regional Airport ATCT Relocation Project. Thank you. - Lisa

Lisa Lawson, RLA
Project Manager, Kutchins & Groh, LLC
(504) 330-7035 lisa@kutchins-groh.com
www.kutchins-groh.com
400 Poydras St., Suite 1380, New Orleans, LA 70130

JEFF LANDRY
GOVERNOR

AURELIA S. GIACOMETTO
SECRETARY

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

February 9, 2024

Lisa Lawson, Project Manager
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130
lisa@kutchins-groh.com

RE: 240130/0180

Shreveport Regional Airport (SHV) Airport Traffic Control Tower (ATCT) Relocation
Parish Funding
Caddo Parish

Dear Ms. Lawson:

The Louisiana Department of Environmental Quality (LDEQ) has received your request for comments on the above referenced project.

After reviewing your request, the Department has no objections based on the information provided in your submittal. However, for your information, the following general comments have been included. Please be advised that if you should encounter a problem during the implementation of this project, you should immediately notify LDEQ's Single-Point-of-contact (SPOC) at (225) 219-3640.

- Please take any necessary steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater.
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-3590 to determine if your proposed project requires a permit.
- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application form or Notice of Intent will need to be submitted if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information may be obtained on the LDEQ website at https://deq.louisiana.gov/page/sewage-biosolids or by contacting the LDEQ Water Permits Division at (225) 219- 3590.

- If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps directly regarding permitting issues. If a Corps permit is required, part of the application process may involve a water quality certification from LDEQ.
- All precautions should be observed to protect the groundwater of the region.
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary.
- Any renovation or remodeling must comply with LAC 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.
- **The proposed project sites are located within LDEQ defined water unit LA100603_00. According to the LDEQ 2022 Integrated Report, this unit has a water quality impairment for oxygen. Control of nonpoint source pollution from construction should follow as outlined above, as disturbance and sedimentation can worsen water quality.**
- **It seems that this project involves new construction, that extensive excavation may be needed to complete the project, and historical land use has not been identified. It is therefore advised that site-specific environmental assessments be performed on project areas to address specific environmental concerns, and provide for worker safety.**

  If the project will involve the removal or disturbance of any soils which may have contaminant concentrations that exceed the Screening Option Standards established by the LDEQ Risk Evaluation/Corrective Action Program (RECAP) Regulation, these materials may be considered a waste and disposed of at a permitted facility, or might be managed as part of a Solid Waste Beneficial Use or Soil Reuse Plan in accordance with LAC 33:VII.Chapter 11. Alternately, a site-specific RECAP Evaluation might be conducted and submitted to the LDEQ.
- **If the project will involve the disturbance of any soils in former UST areas which may exceed the Screening Option Standards established by the LDEQ Risk Evaluation/Corrective Action Program (RECAP) Regulation, these materials may be considered a waste and disposed of at a permitted facility, or might be managed as part of a Solid Waste Beneficial Use or Soil Reuse Plan in accordance with LAC 33:VII.Chapter 11. Alternately, a site-specific RECAP Evaluation might be conducted and submitted to the LDEQ.**

JEFF LANDRY
GOVERNOR

AURELIA S. GIACOMETTO
SECRETARY

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

If any underground storage tanks are encountered during the project, they must be in compliance with the regulations found in LAC 33:XI of the Environmental Regulatory Code. If any contaminated soil or groundwater is encountered, the findings should be reported to LDEQ.

Currently, Caddo Parish is classified as attainment with the National Ambient Air Quality Standards and has no general conformity determination obligations.

Please send all Solicitation of Views (SOVs) requests and questions to SOVs@la.gov.

Sincerely,

mcjimenez

Marissa Jimenez
Environmental Scientist Manager
Louisiana Department of Environmental Quality
Office of the Secretary

May 21, 2024

Department of Agriculture & Forestry
Office of Soil/Water Conservation
P.O. Box 3554
Baton Rouge, LA 70821
Sent via email to: OSWCstaff@LDAF.state.LA.US

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Air Traffic Control Tower Relocation (ATCT)
Shreveport, LA

Dear Sir or Madam:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts associated with the relocation of the ATCT at SHV.

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Please send your responses to me at:

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

Should you have any questions, or require additional information, please feel free to call me at (504) 330-7035. Thank you.

Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

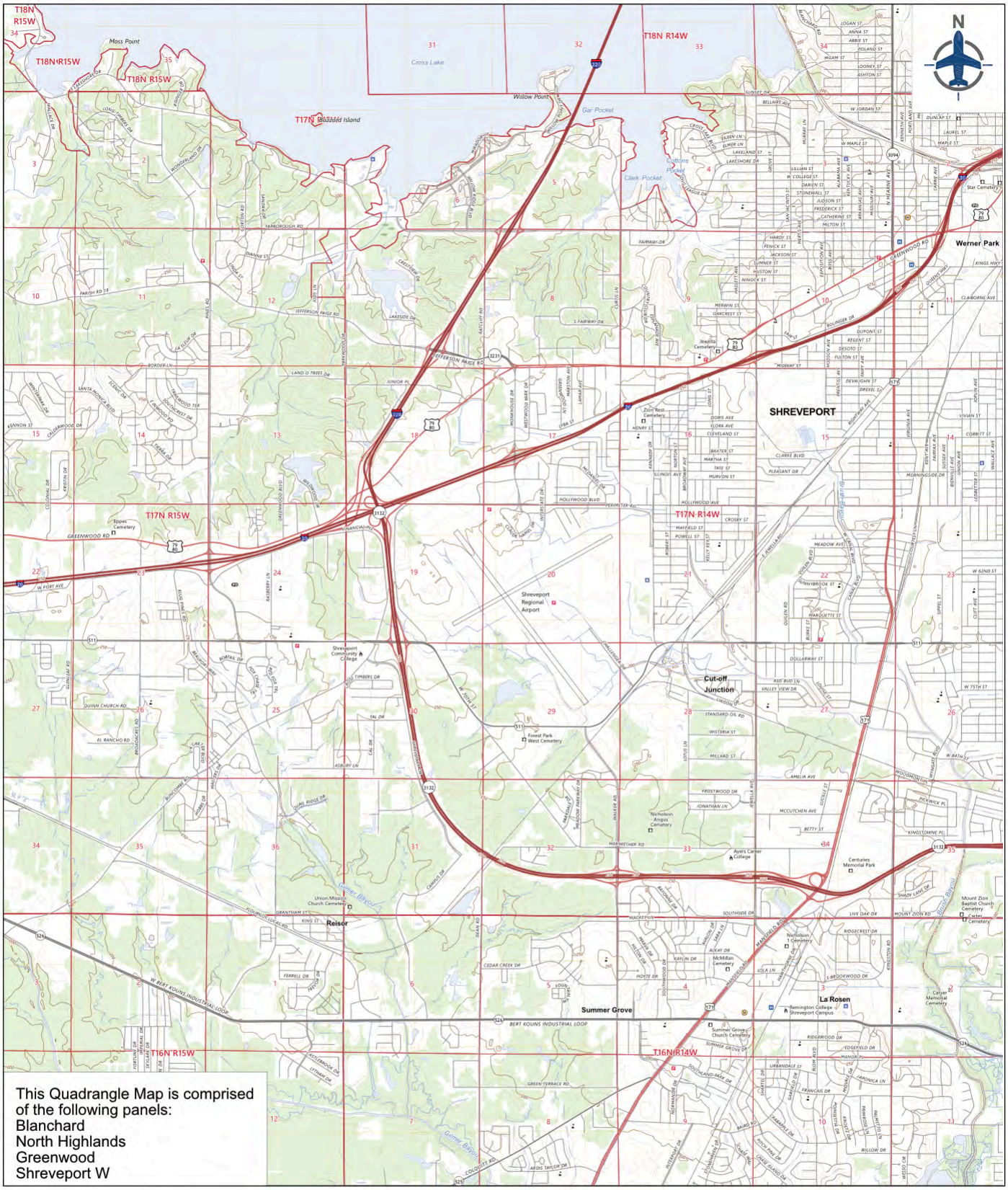
cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
Aerial view of the project area

EXHIBIT 1

SHREVEPORT REGIONAL AIRPORT

JANUARY 2024



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Greenwood
Shreveport W

SHV USGS Quad Map

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Not to Scale

Kutchins & Groh

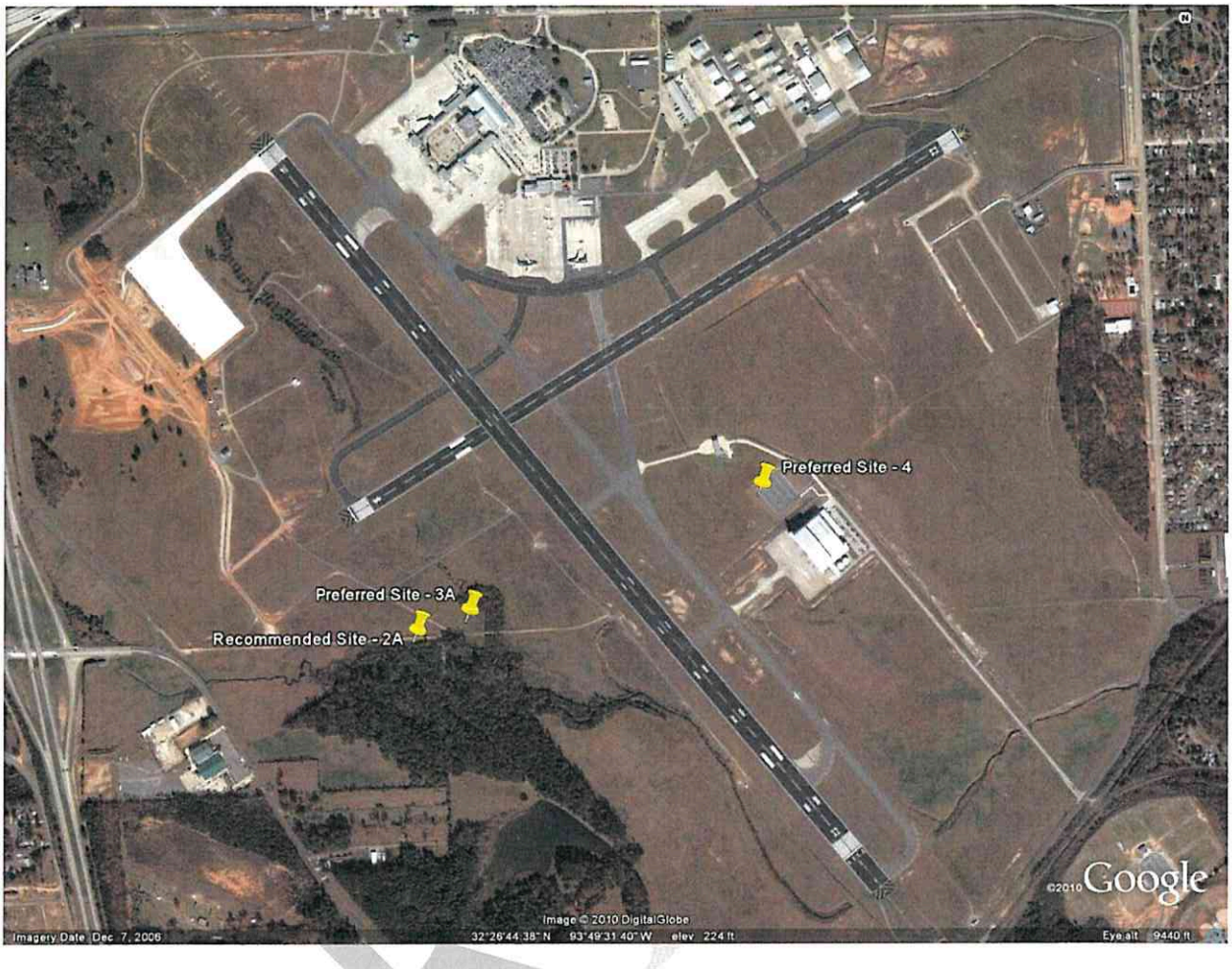
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Figure 3 – Location of the three preferred sites during the AFTIL Trip 2

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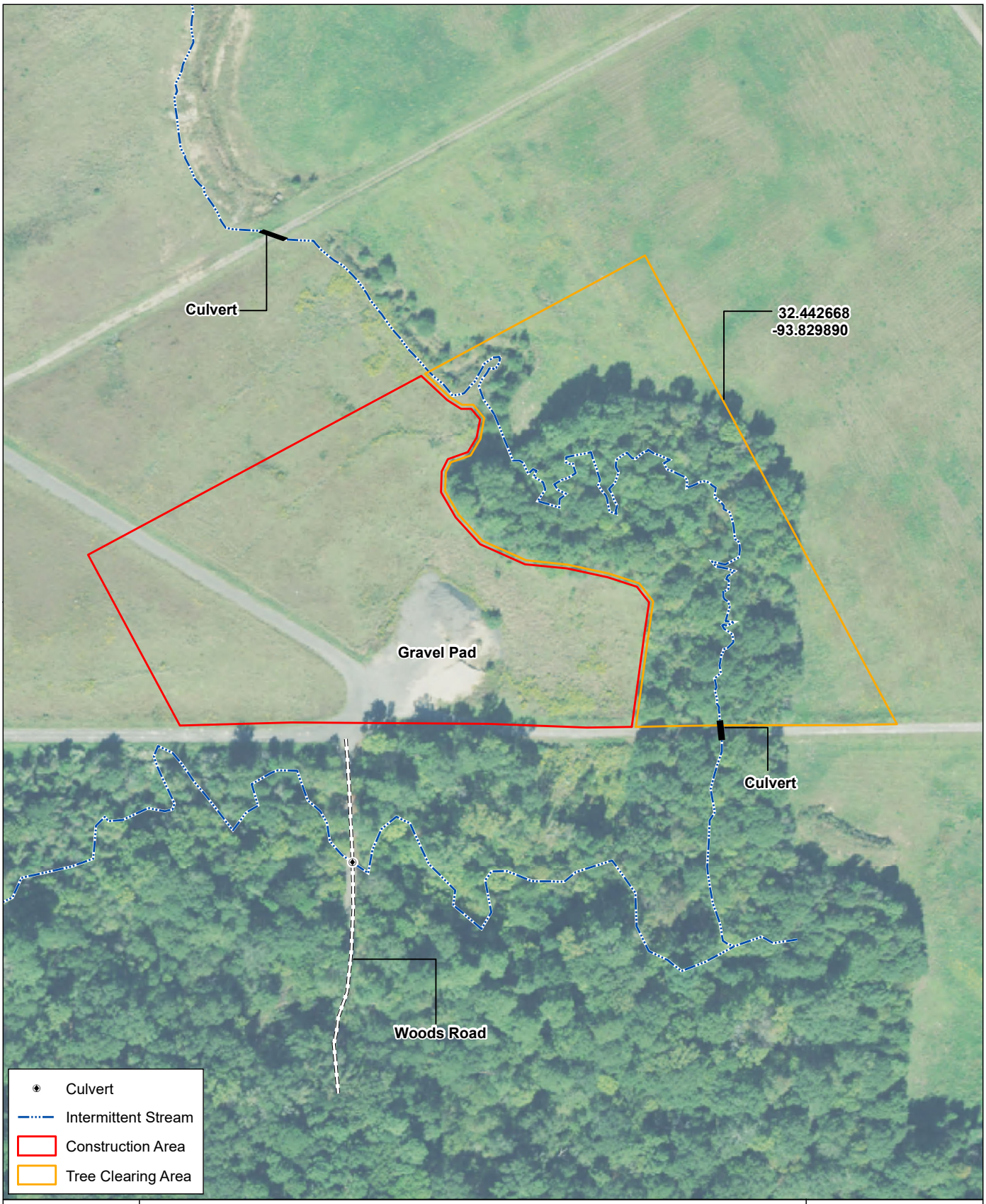

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Aerial Photograph of the Proposed ATCT 3a Construction Area at the Shreveport Regional Airport in Caddo Parish, LA

N
W E
S

0 50 100 200 300 400 500 600 700 Feet

KSA Engineers, Inc.
Project Number: 050096.00

Date: 03/01/2024

Base Map: NRCS Geospatial Data Gateway
2021 NAIP Aerial Imagery (Caddo Parish, LA)

SPHERE 3 ENVIRONMENTAL
1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

May 21, 2024

Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808
Sent via email to riles@wlf.la.gov and rlebreton@wlf.la.gov

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Air Traffic Control Tower Relocation (ATCT)
Shreveport, LA

Dear Sir or Madam:

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Please send your responses to me at:

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

Should you have any questions, or require additional information, please feel free to call me at (504) 330-7035. Thank you.

Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

cc: Larry Blackwell, Shreveport Regional Airport

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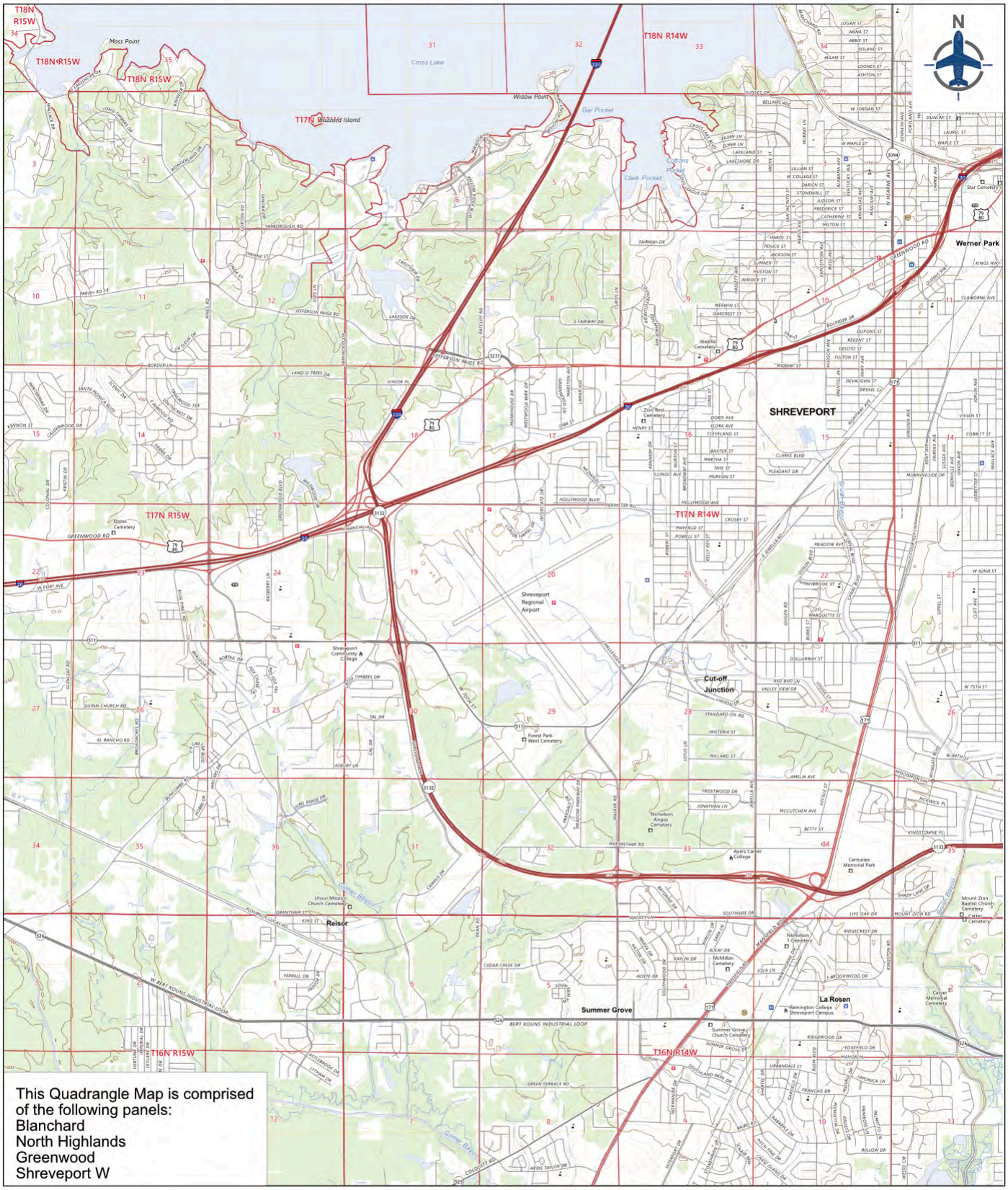

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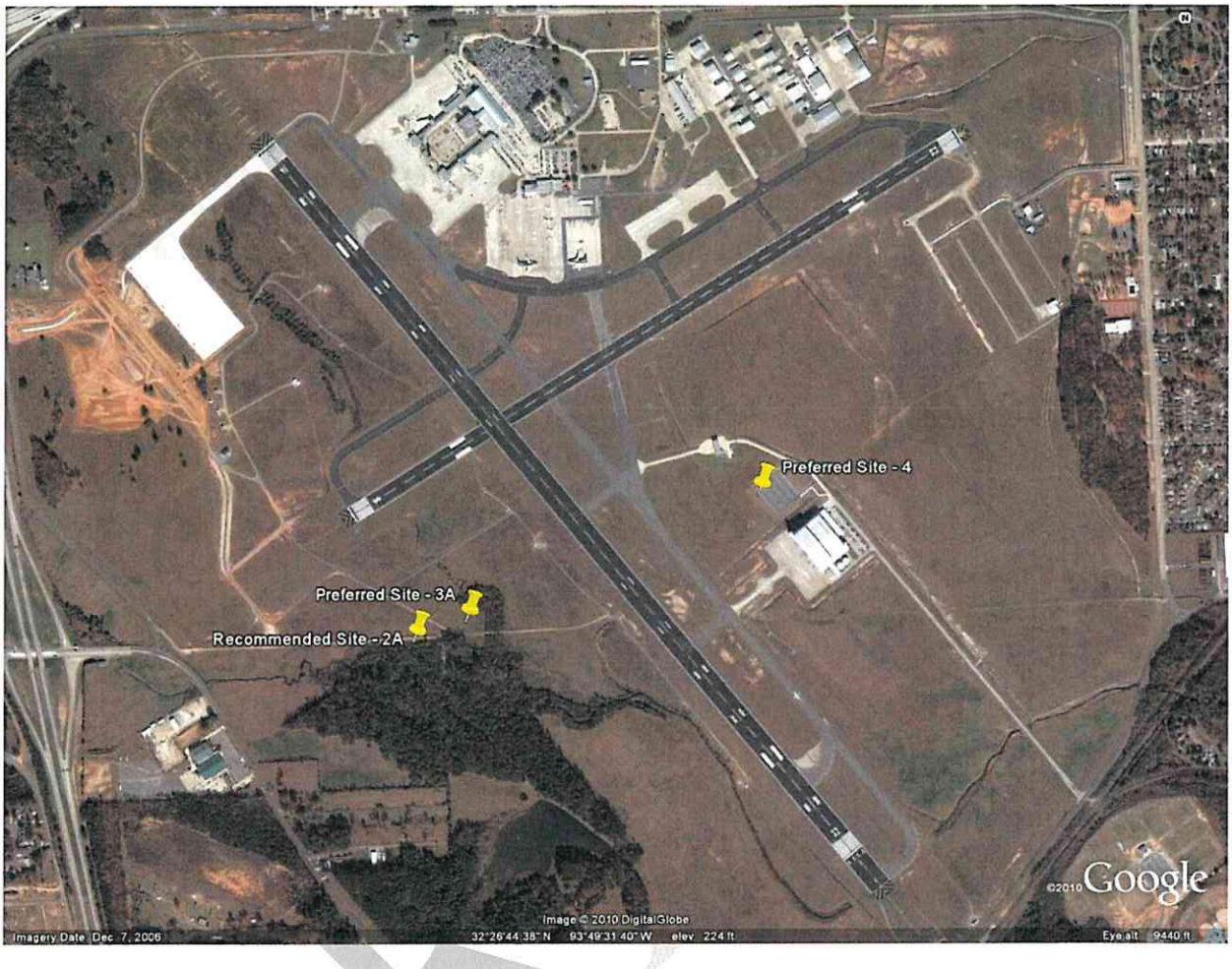
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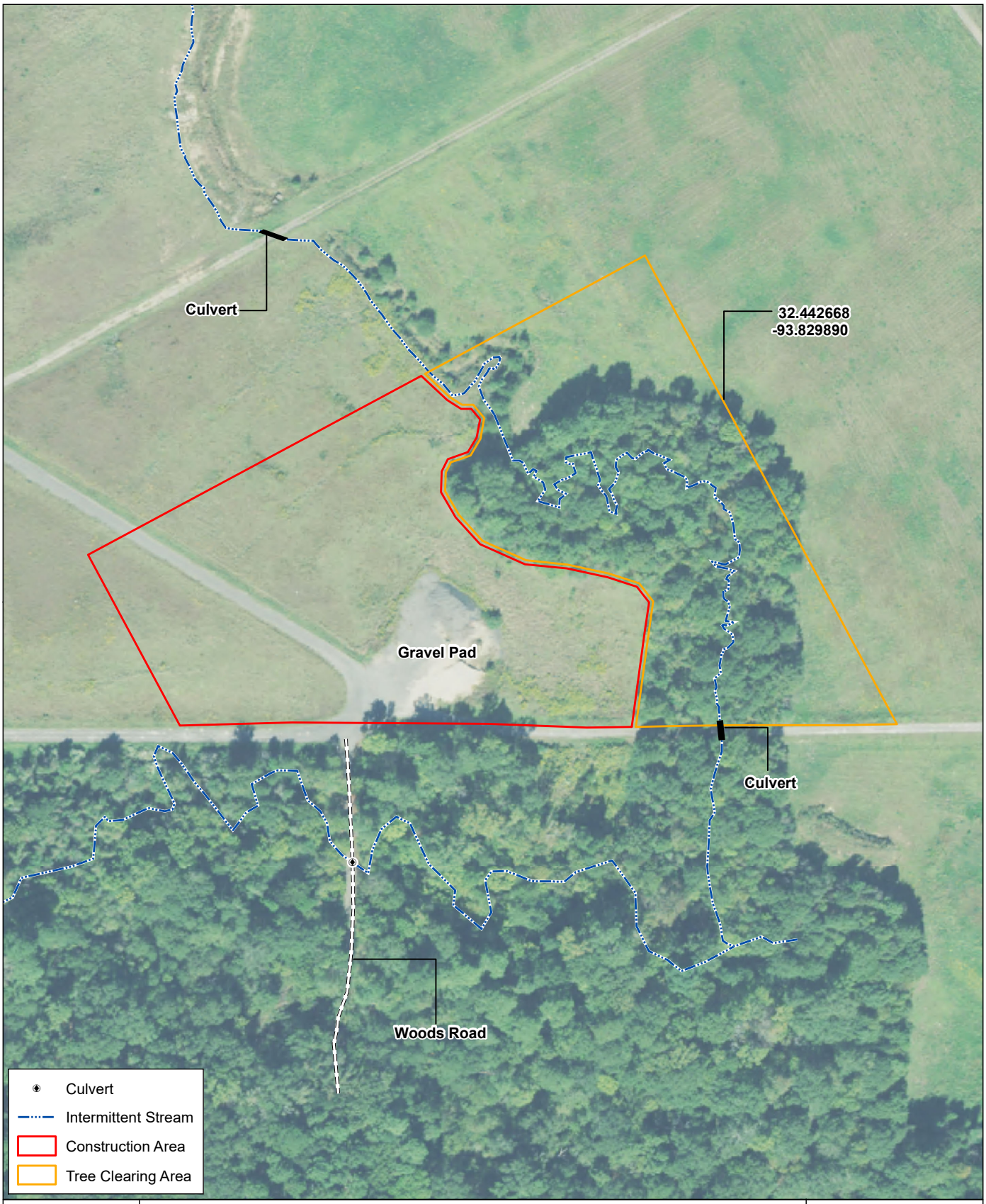

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KSA Engineers, Inc.
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Date: 03/01/2024

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SPHERE 3 ENVIRONMENTAL
1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

May 21, 2024

Fish & Wildlife Service
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Sent via email at: lafayette@fws.gov

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Shreveport, LA

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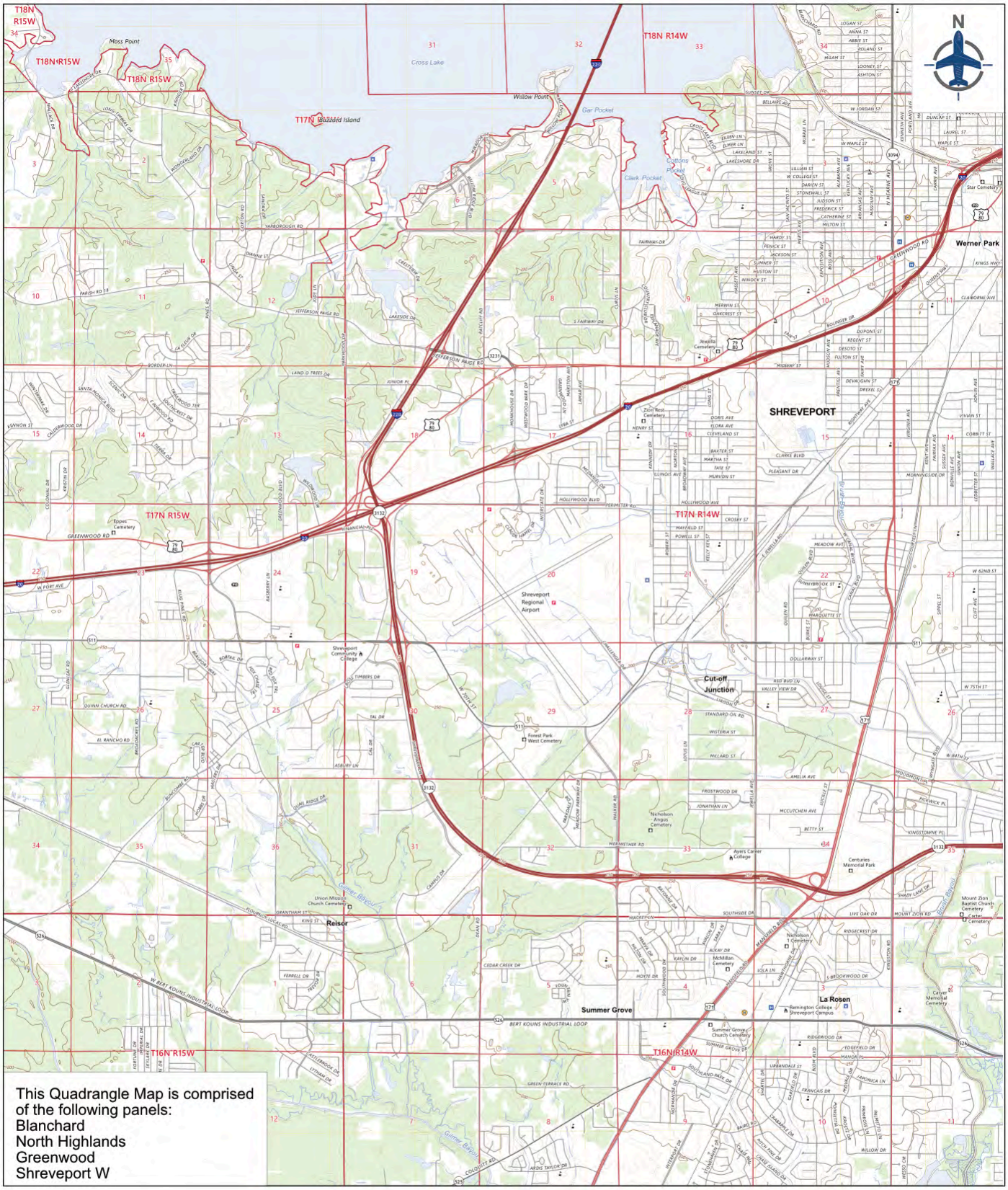

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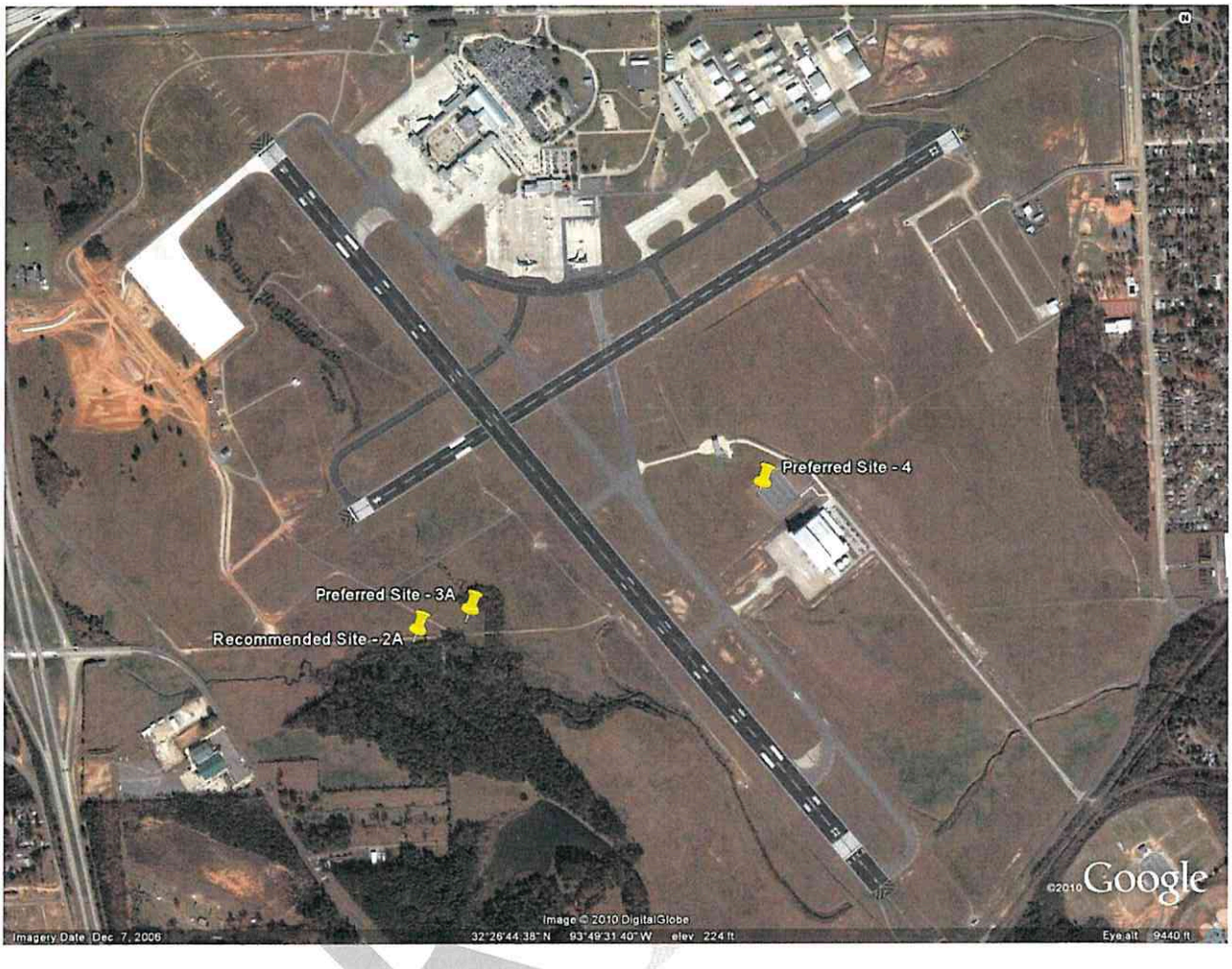
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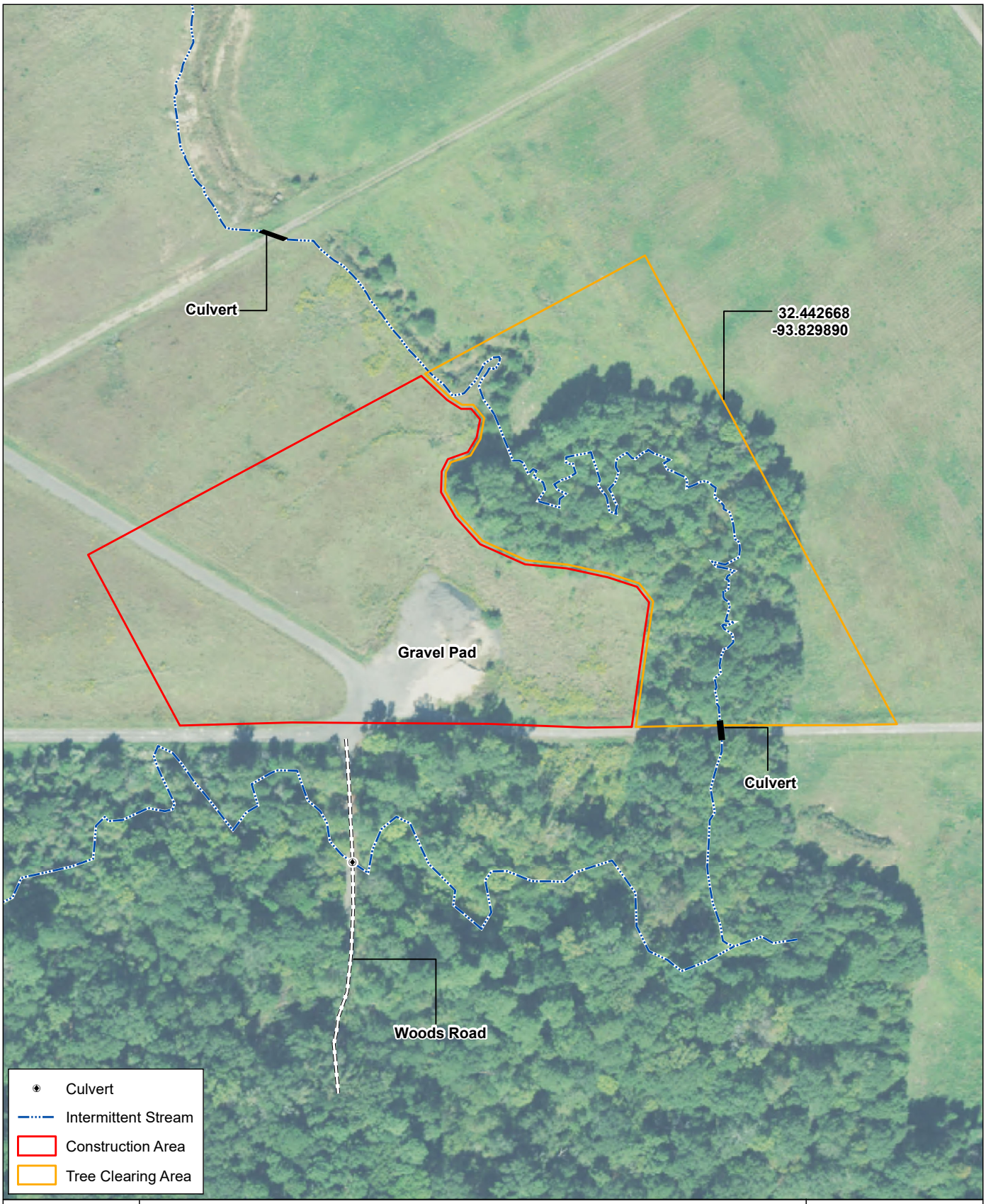

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SPHERE 3 ENVIRONMENTAL
1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

May 21, 2024

Dept. of Agriculture & Forestry
Office of Forestry
5825 Florida Blvd, Suite 6000
Baton Rouge, LA 70806
Sent via email to: info@ldaf.state.la.us

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Shreveport, LA

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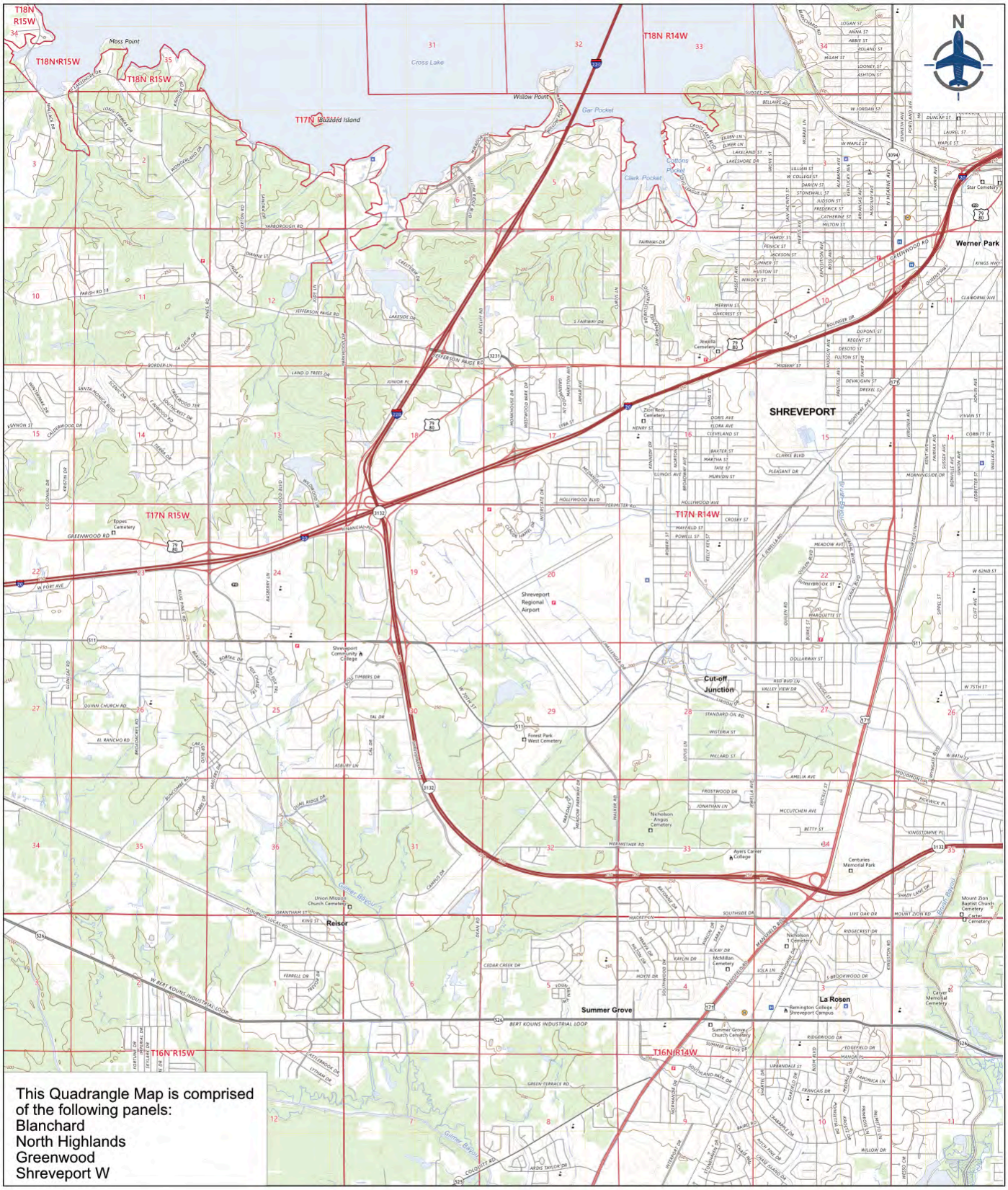

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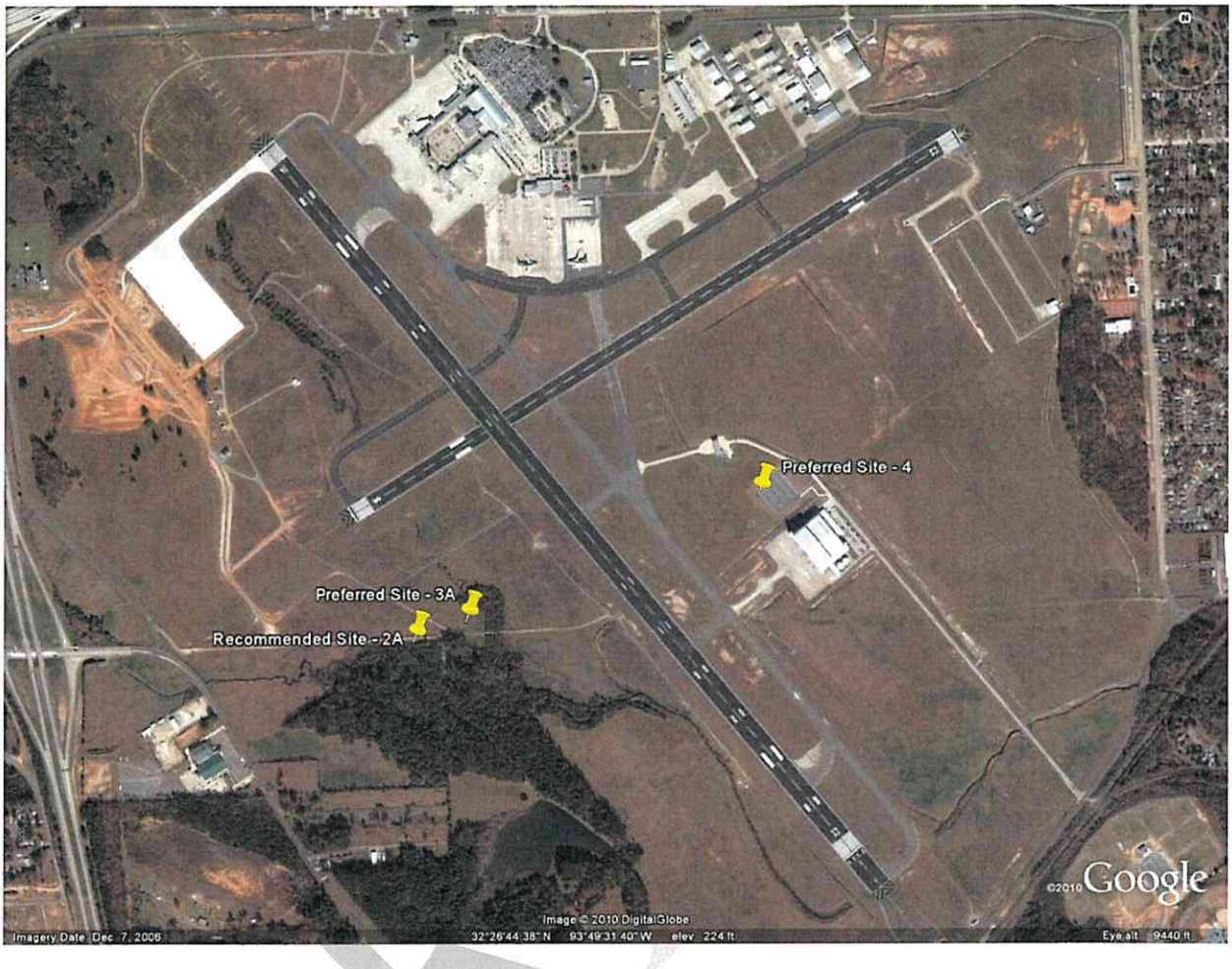
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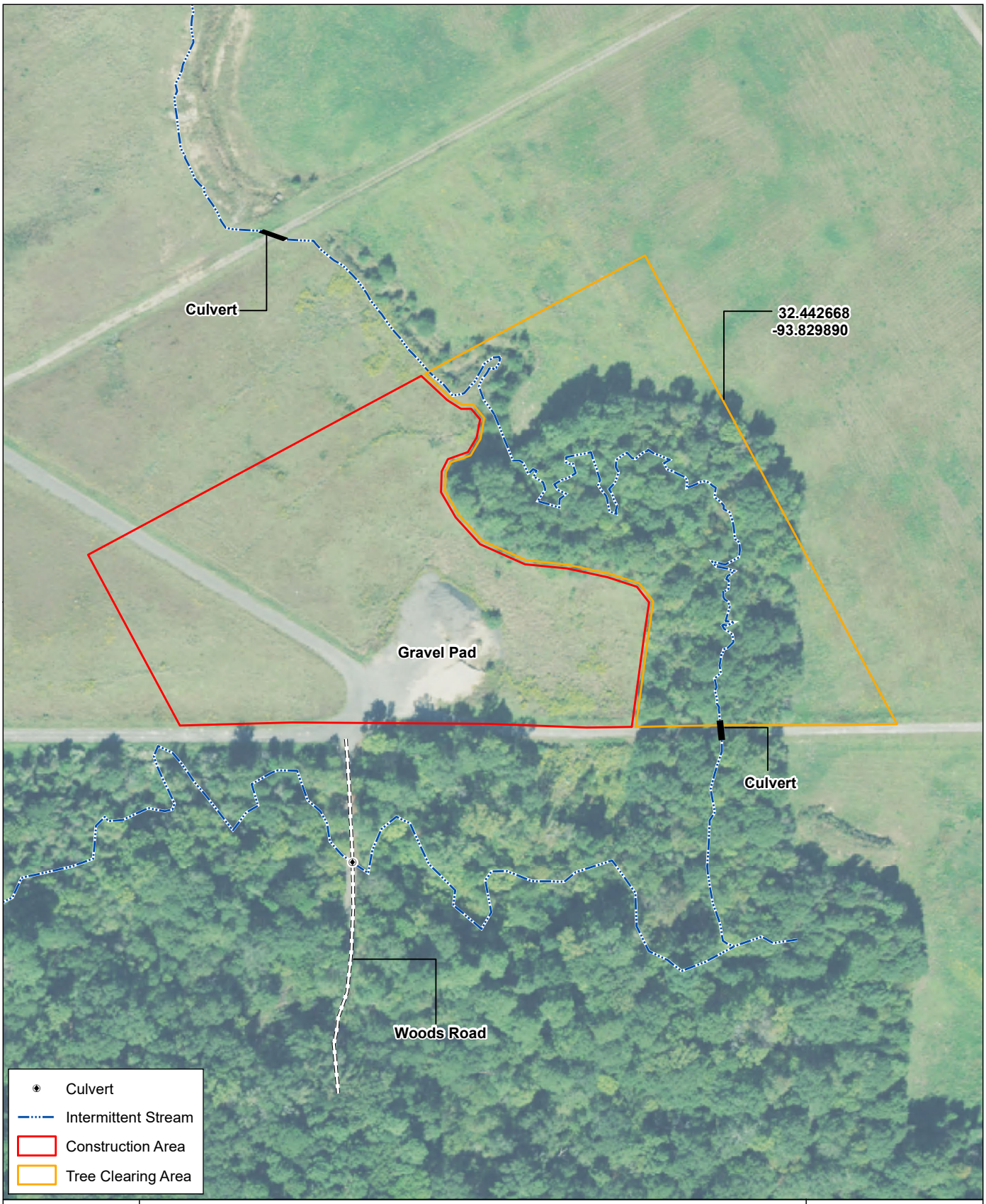

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SPHERE 3 ENVIRONMENTAL
1501 Bill Owens Parkway
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Phone: (903) 297-4673
www.sphere3env.com

LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
MIKE STRAIN DVM
COMMISSIONER

June 3, 2024

Agricultural & Environmental Sciences
P.O. Box 3596
Baton Rouge,
LA 70821
(225) 925-3770
Fax: 925-3760

Agro-Consumer Services
P.O. Box 3098
Baton Rouge,
LA 70821
(225) 922-1341
Fax: 923-4877

Animal Health & Food Safety
P.O. Box 1951
Baton Rouge,
LA 70821
(225) 925-3962
Fax: 925-4103

Forestry
P.O. Box 1628
Baton Rouge,
LA 70821
(225) 925-4500
Fax: 922-1356

Management & Finance
P.O. Box 3481
Baton Rouge,
LA 70821
(225) 922-1255
Fax: 925-6012

Soil & Water Conservation
P.O. Box 3554
Baton Rouge,
LA 70821
(225) 922-1269
Fax: 922-2577

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras St.
New Orleans, LA 70130
504-330-7035
lisa@kutchins-groh.com

Ref: Shreveport Regional Airport (SHV) Air Traffic Control Tower (ATCT) Camp Beauregard Housing Construction & Rebuild

Dear Ms. Lawson,

The LDAF/Office of Soil & Water Conservation has reviewed the attached Solicitation of Views regarding the environmental assessments for the proposed air traffic control tower relocation in at the Shreveport Regional Airport in Caddo Parish, LA and has no objection to any of the three sites considered.

If this office may be of any further assistance, please do not hesitate to contact us.

Sincerely,

Joey Breaux
Assistant Commissioner,
LDAF/Office of Soil & Water Conservation
Director, LA Soil & Water Conservation Commission
225.922.1269

May 21, 2024

Fish & Wildlife Service
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Sent via email at: lafayette@fws.gov

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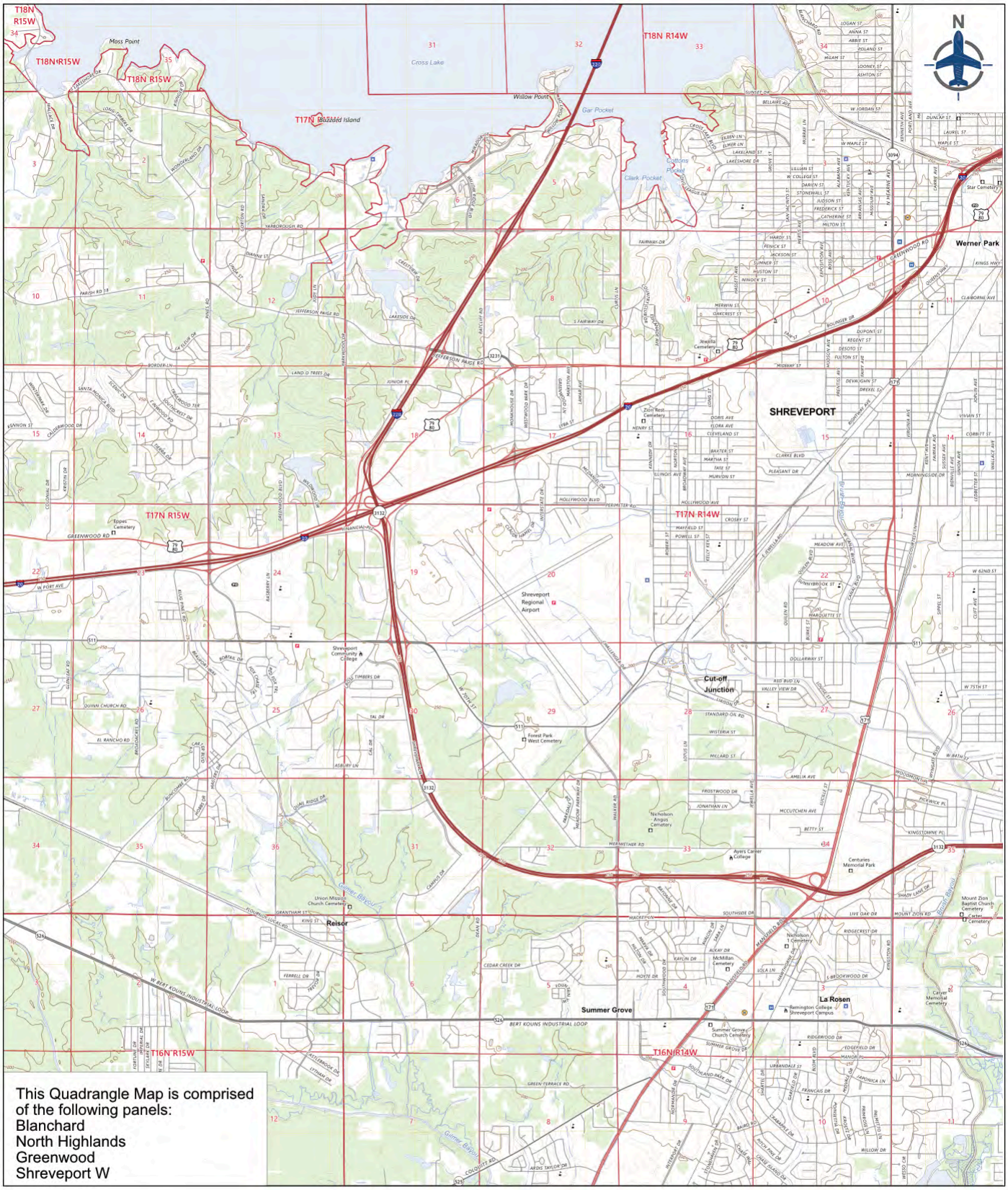

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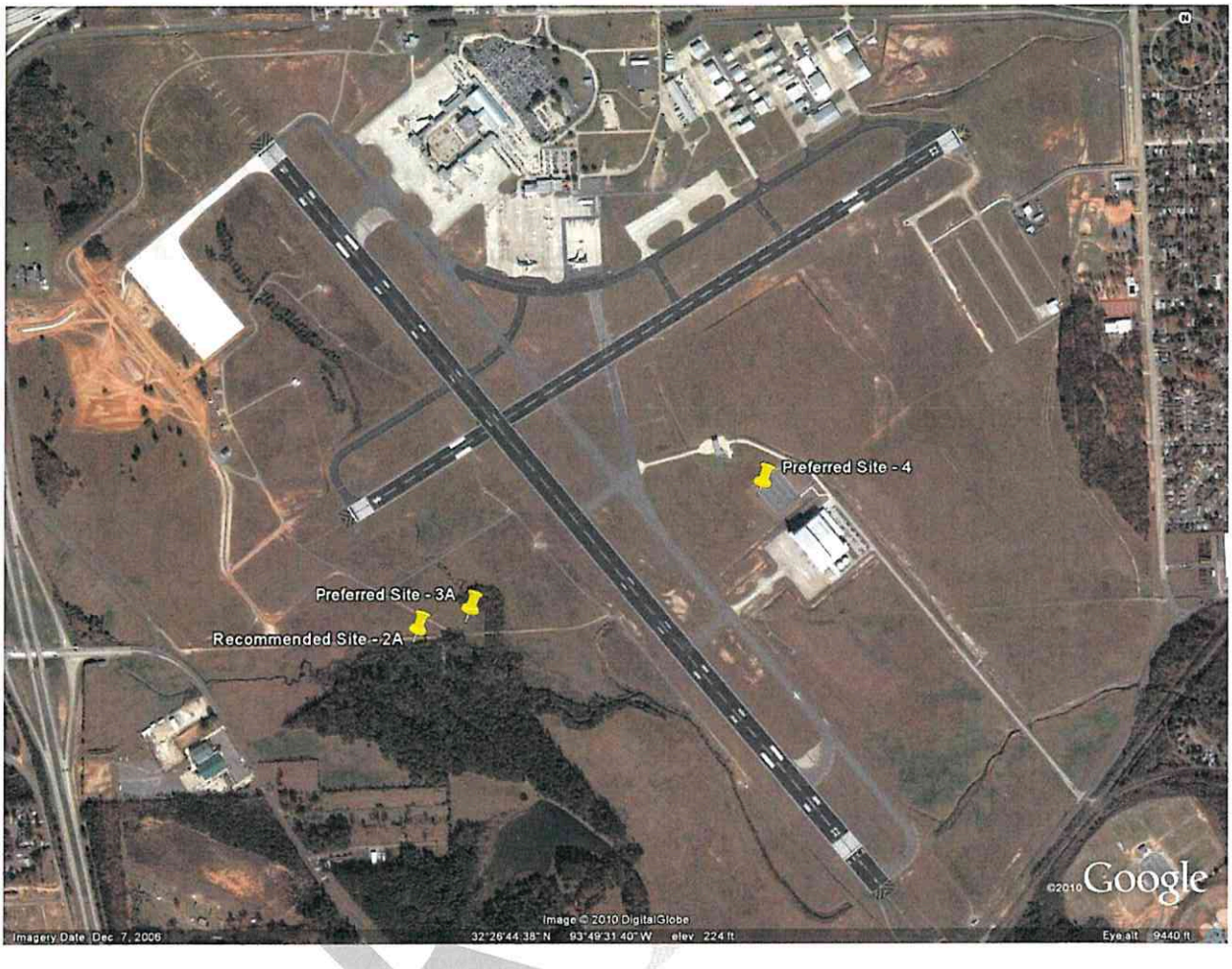
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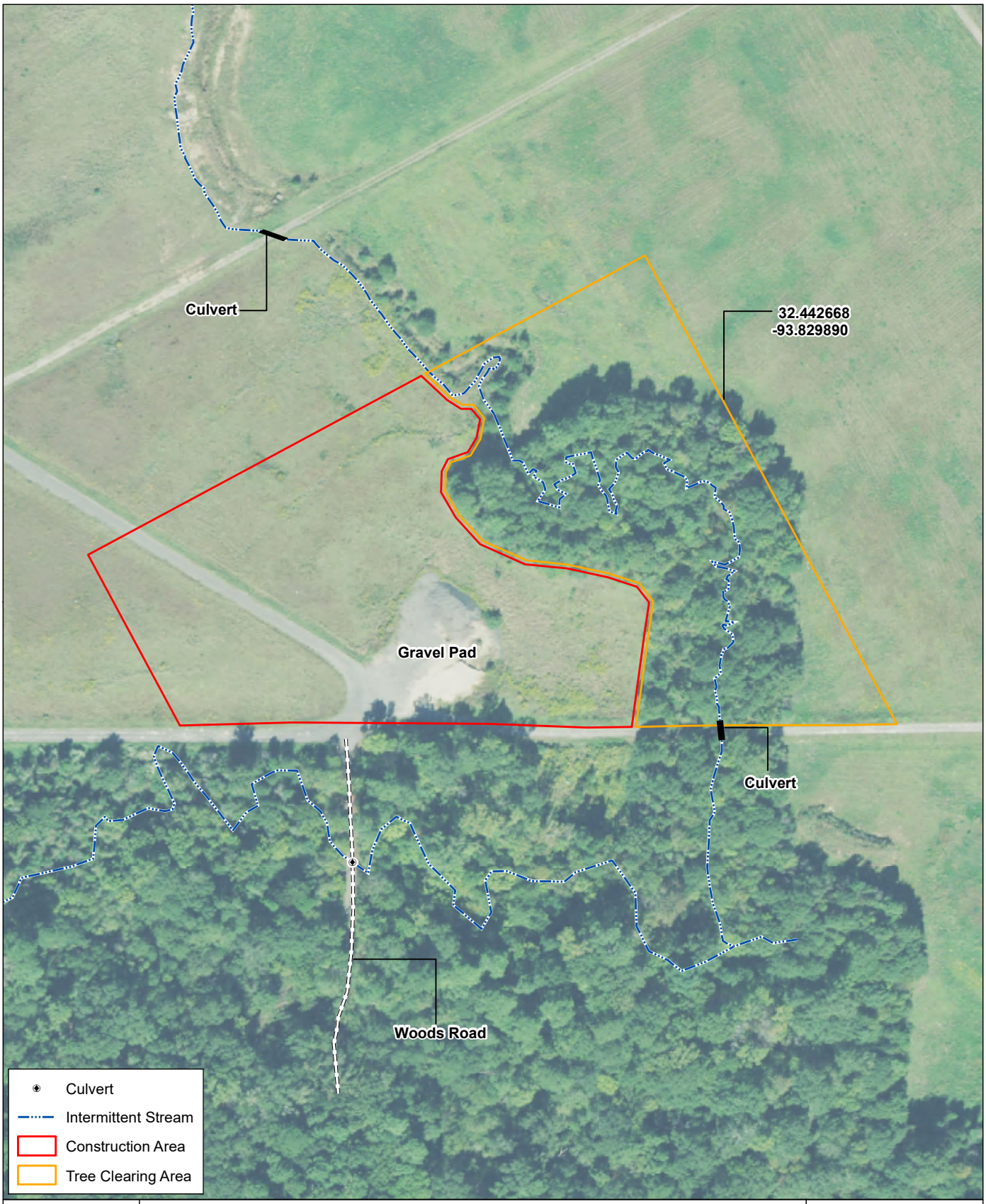

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January 30, 2024

Phil Boggan, State Historic Preservation Officer
LA Dept. of Culture, Recreation & Tourism
PO Box 44247
Baton Rouge, LA 70804-4227
Sent via email: section106@CRT.LA.GOV

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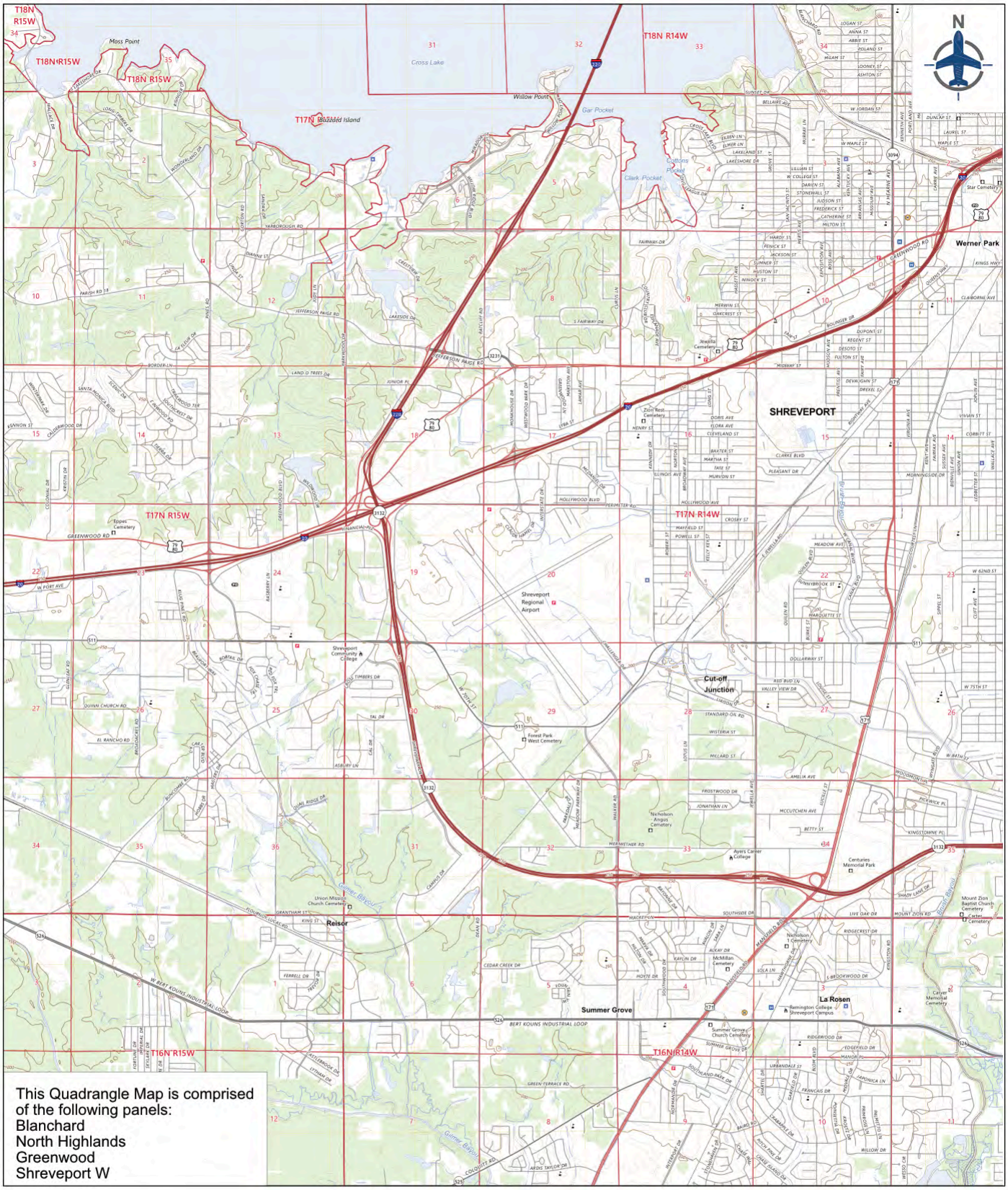

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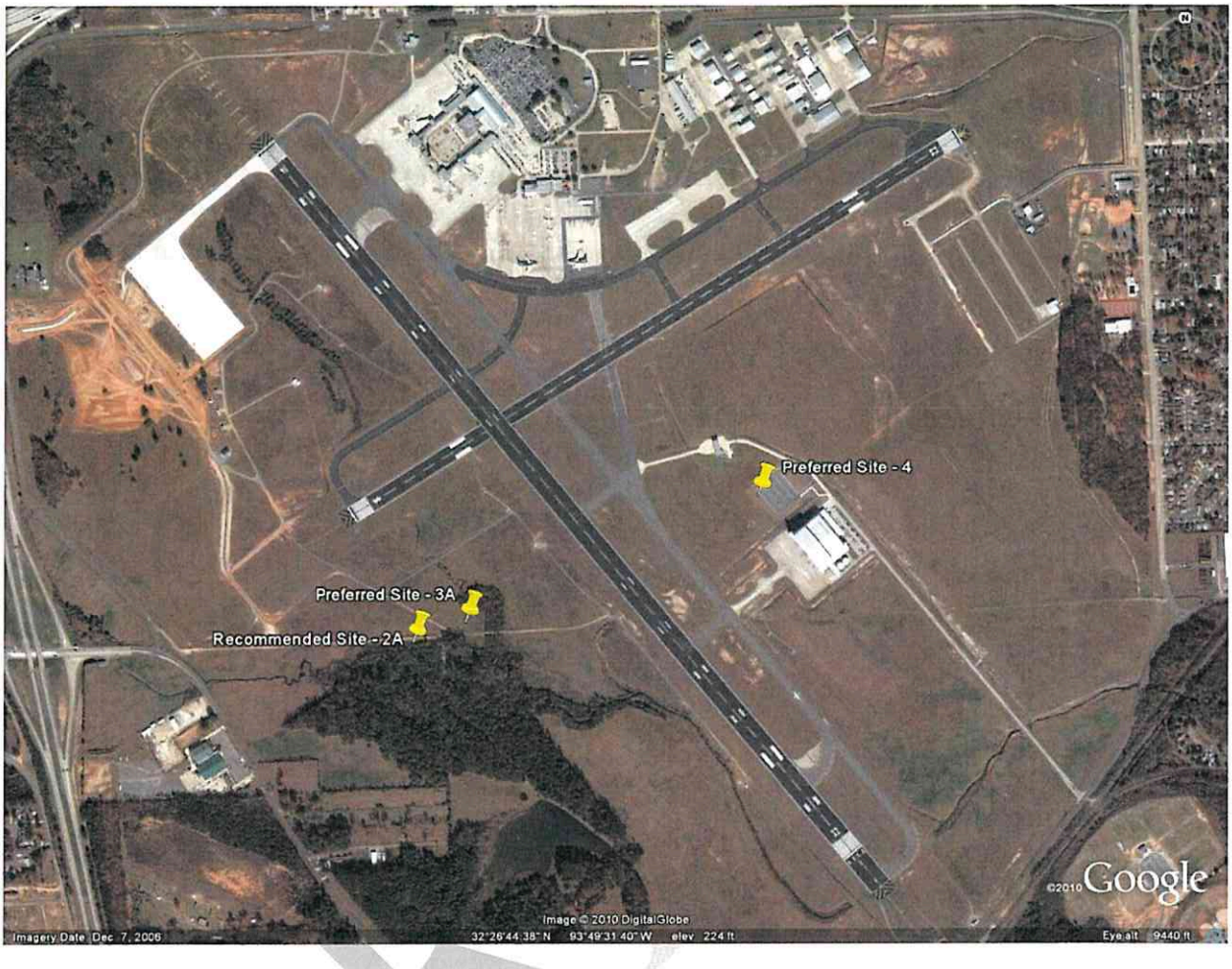
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From: DCRT Section 106
To: lisa@kutchins-groh.com
Subject: RE: for review and comment - SOV Request for Shreveport Regional Airport ATCT Relocation Project
Date: Tuesday, January 30, 2024 11:09:25 AM

This serves as your notice that the SHPO received your submission. The National Historic Preservation Act allows the SHPO 30 days, from date of receipt, to process and respond to your request. Any submission received on a State holiday or after 5:00 pm Monday – Friday will be considered received the following business day.

We are no longer able to offer expedited reviews unless a previous legal agreement is in place and please allow two weeks from submission before project status inquiries are made. Thank you for your cooperation.

For inquiries on project status call (225) 342-8170 or (225) 342-6931 and ask for Section 106 staff.

From: lisa@kutchins-groh.com
To: DCRT Section 106
Subject: for review and comment - SOV Request for Shreveport Regional Airport ATCT Relocation Project
Date: Tuesday, January 30, 2024 11:08:52 AM
Attachments: SHPO ltr to P Boggan 1-30-24.pdf

EXTERNAL EMAIL Please do not click on links or attachments unless you know the content is safe.

Good morning. Please find attached an SOV letter and 2 exhibits regarding the Airport Traffic Control Tower Relocation Project at Shreveport Regional Airport. Thank you. - Lisa

Lisa Lawson, RLA
Project Manager, Kutchins & Groh, LLC
(504) 330-7035 lisa@kutchins-groh.com
www.kutchins-groh.com
400 Poydras St., Suite 1380, New Orleans, LA 70130

Kutchins & Groh
consulting associates for airports

The SHPO has received your SOV. At this time, our office cannot offer an opinion concerning effect determinations. However, we are not aware of potential concerns at this time. This opinion could change once we receive additional information concerning this project.

Kristin P. Sanders

Kristin P. Sanders
State Historic Preservation Officer
Date 3/1/2024

January 30, 2024

Phil Boggan, State Historic Preservation Officer
LA Dept. of Culture, Recreation & Tourism
PO Box 44247
Baton Rouge, LA 70804-4227
Sent via email: section106@CRT.LA.GOV

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Airport Traffic Control Tower (ATCT) Relocation
Shreveport, LA

Dear Phil:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts associated with the relocation of the ATCT at SHV.

The Airport plans to relocate the ATCT to the southern portion of the airfield, to the west of Runway 14-32 and south of Runway 6-24 (please see attached Exhibit 2.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft.

The Department of Natural Resources requested that we contact your office to determine if you have any interest in these potential sites. In order to identify potential environmental issues that should be considered as we develop this plan, we are soliciting views from your group for impacts to threatened and endangered species, air and water quality issues, wetlands, and cultural resources. Your review of this planning process and the potential impact(s) (if any) associated with development at the Airport on the resource under your purview would be greatly appreciated.

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We request that you review this site and the planning process as it affects you and provide us with any comments within 30 days of receipt of this letter. If no response is received after this time period, we will assume you have no concerns with this potential development at the Airport.

Please send your responses to me at:

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

Should you have any questions, or require additional information, please feel free to call me at (504) 330-7035. Thank you.

Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

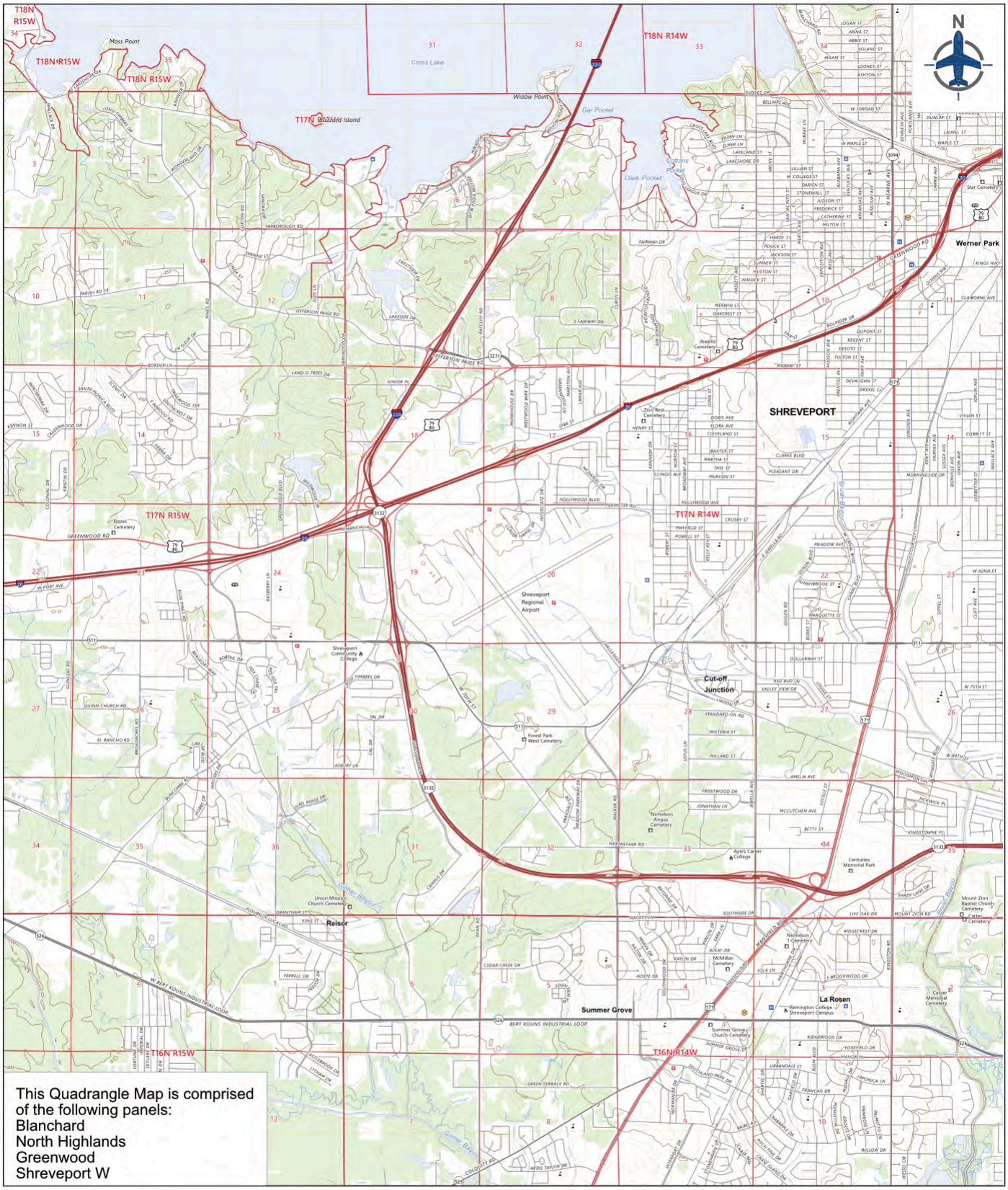
cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
Aerial view of the project area

EXHIBIT 1

SHREVEPORT REGIONAL AIRPORT

JANUARY 2024



This Quadrangle Map is comprised of the following panels:
Blanchard
North Highlands
Greenwood
Shreveport W

SHV USGS Quad Map

0 NTS NTS

Not to Scale

Kutchins & Groh

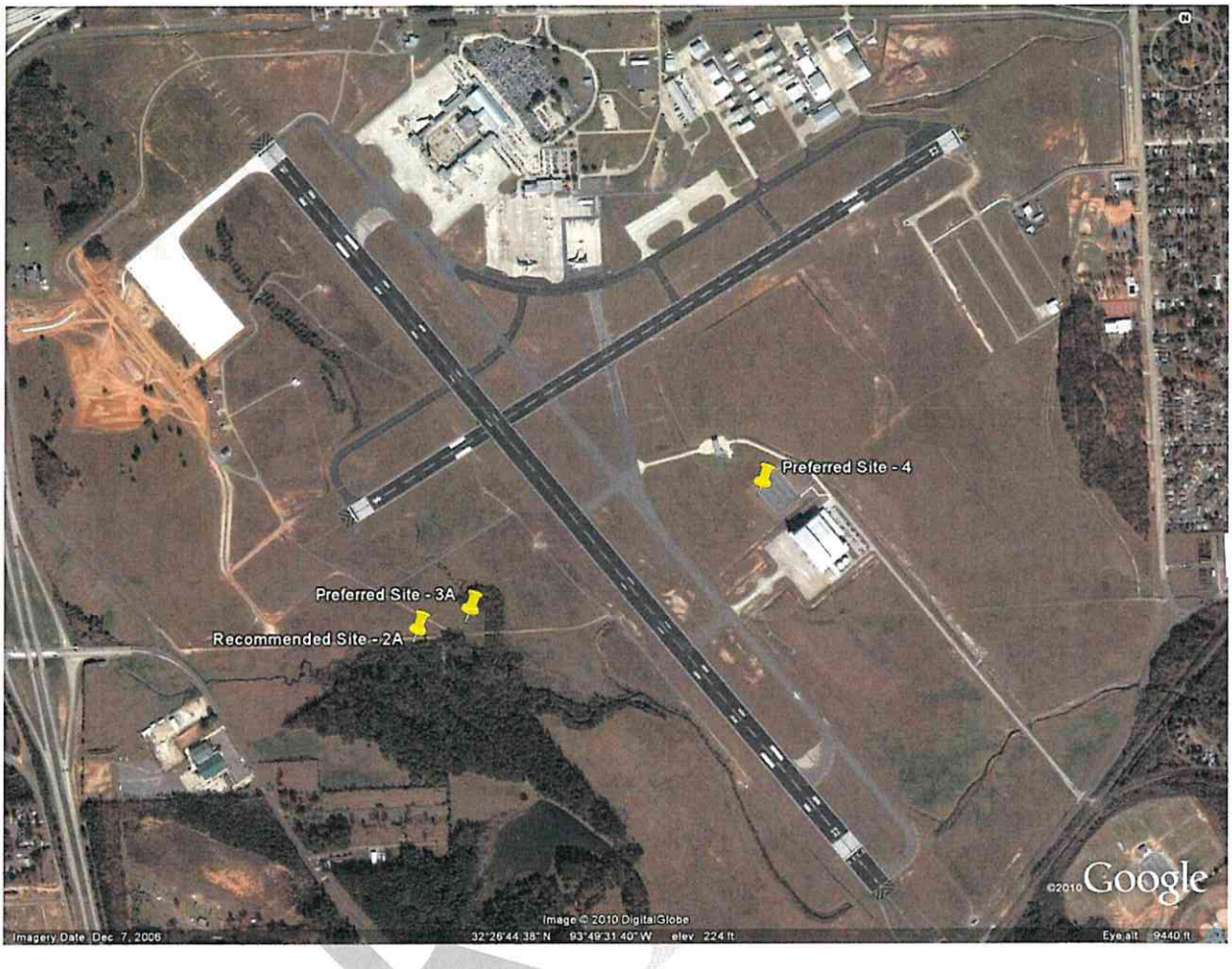

Preferred Site - 4
Preferred Site - 3A
Recommended Site - 2A
©2010 Google
Image © 2010 DigitalGlobe
Imagery Date: Dec 7, 2006
32°26'44.38" N 93°49'31.40" W elev 224 ft
Eye alt 9440 ft

Figure 3 – Location of the three preferred sites during the AFTIL Trip 2

DRAFT

May 16, 2024

David Smith, Assistant Engineer
City of Shreveport Engineering Department
505 Travis Street, Suite 300
Shreveport, LA 71101
Sent via email: david.smith@shreveportla.gov

RE: Solicitation of Views for Shreveport Regional Airport (SHV)
Air Traffic Control Tower Relocation (ATCT), Shreveport, LA

Dear Mr. Smith:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts to the floodplain associated with the relocation of the ATCT at SHV.

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The preferred location for the ATCT, which is illustrated on the attached drawings, lies within the 100 year floodplain. We are contacting your office to determine if you have any interest in providing comments on any effects on the development of this project as it pertains to the floodplain. The project is located at 32° 26' 32.9" N 93° 49' 47.52" W.

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Lisa Lawson
Kutchins & Groh, LLC
400 Poydras Street, Suite 1380
New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

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KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

cc: Larry Blackwell, Shreveport Regional Airport

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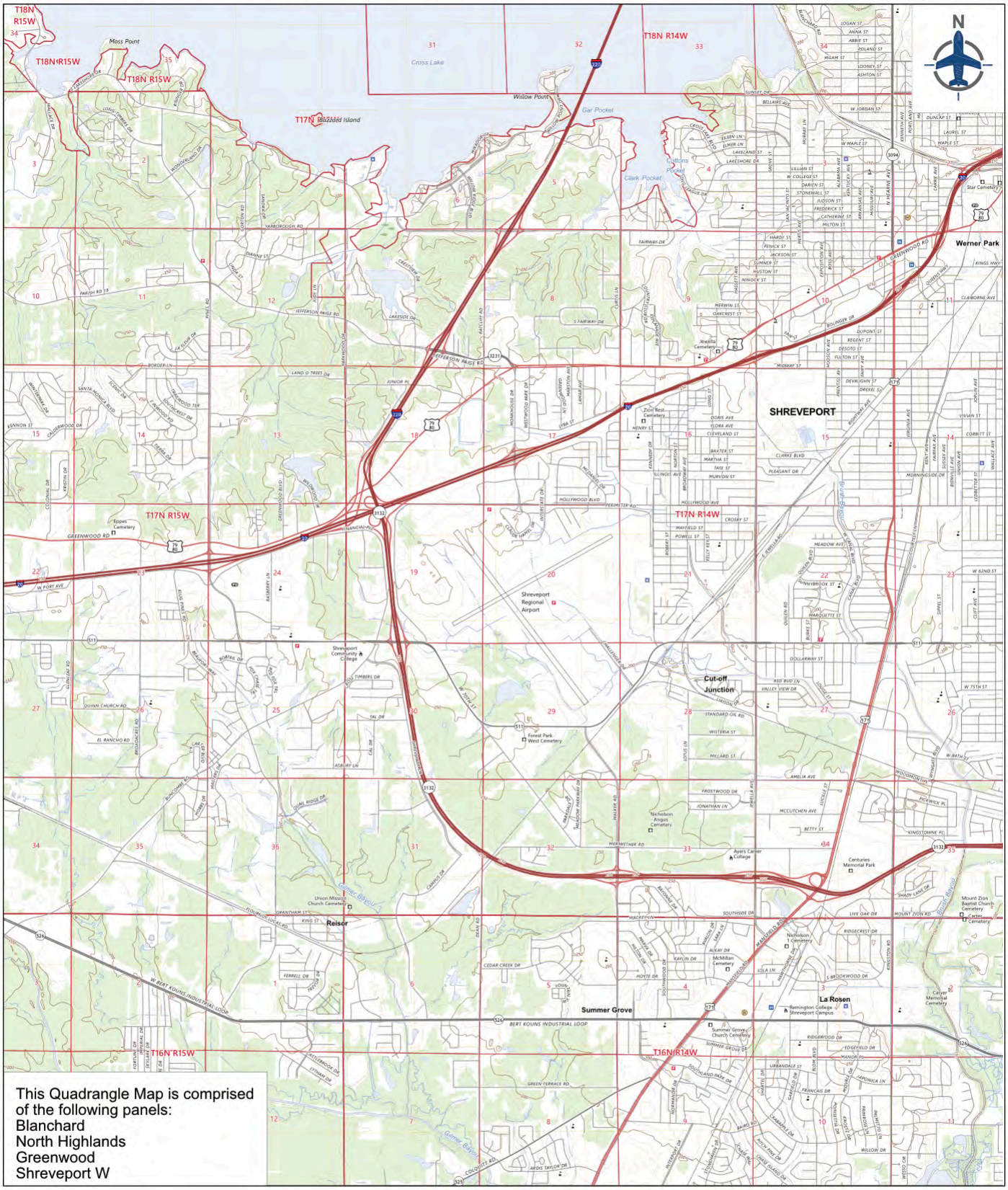

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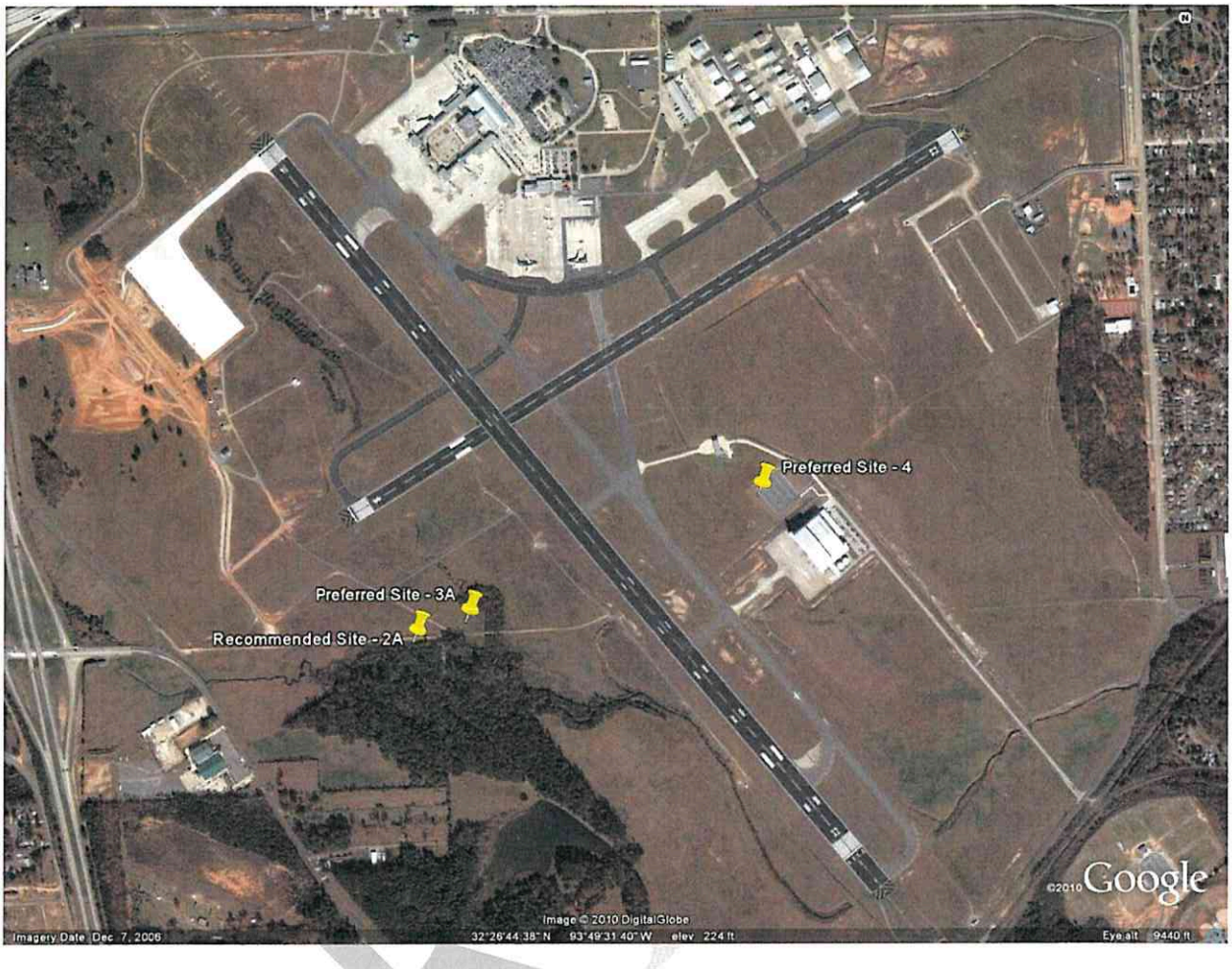
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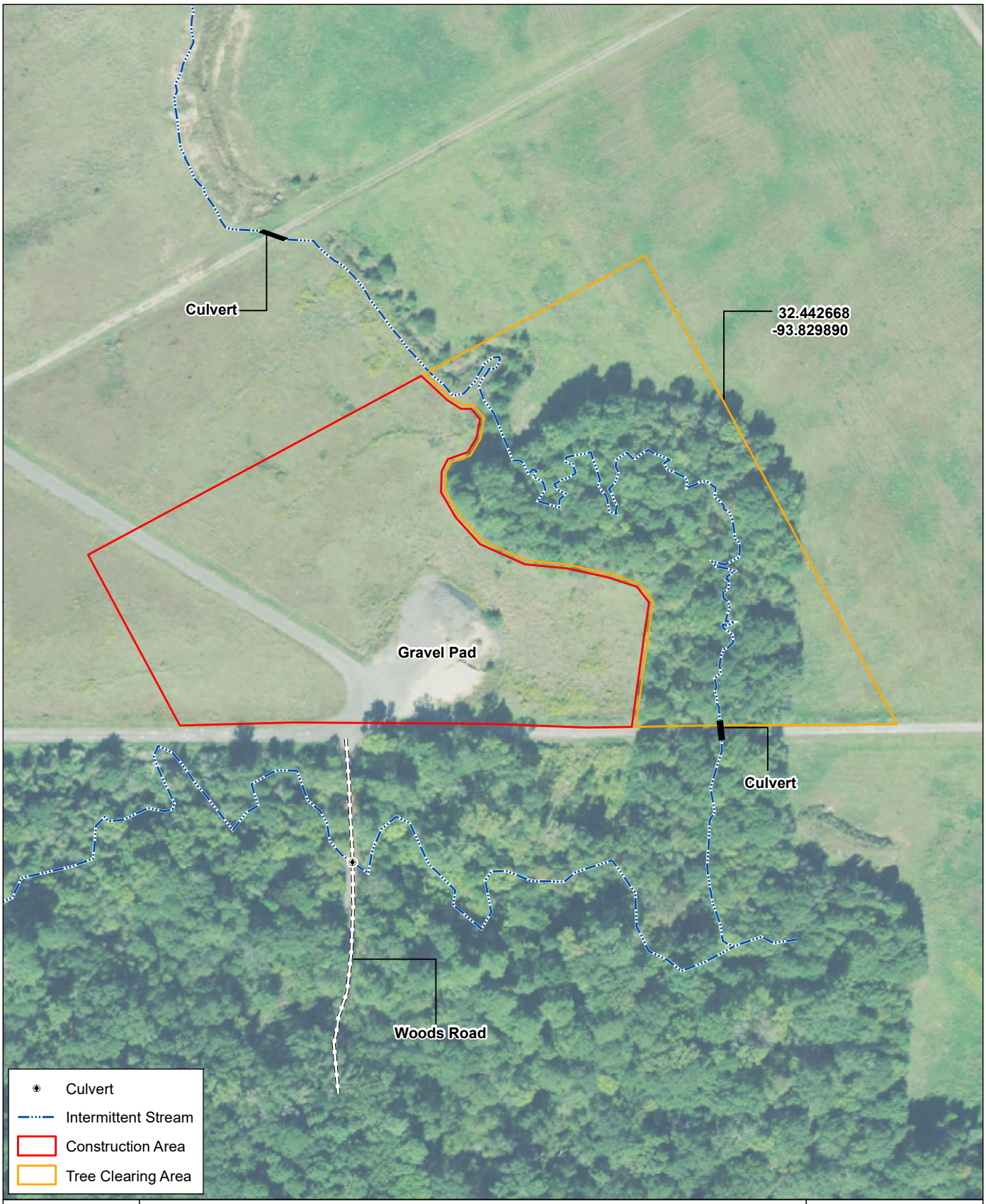

Figure 2
Aerial Photograph of the Proposed ATCT 3a Construction Area at the Shreveport Regional Airport in Caddo Parish, LA

N
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0 50 100 200 300 400 500 600 700 Feet

KSA Engineers, Inc.
Project Number: 050096.00

Date: 03/01/2024

Base Map: NRCS Geospatial Data Gateway
2021 NAIP Aerial Imagery (Caddo Parish, LA)

SPHERE 3 ENVIRONMENTAL
1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

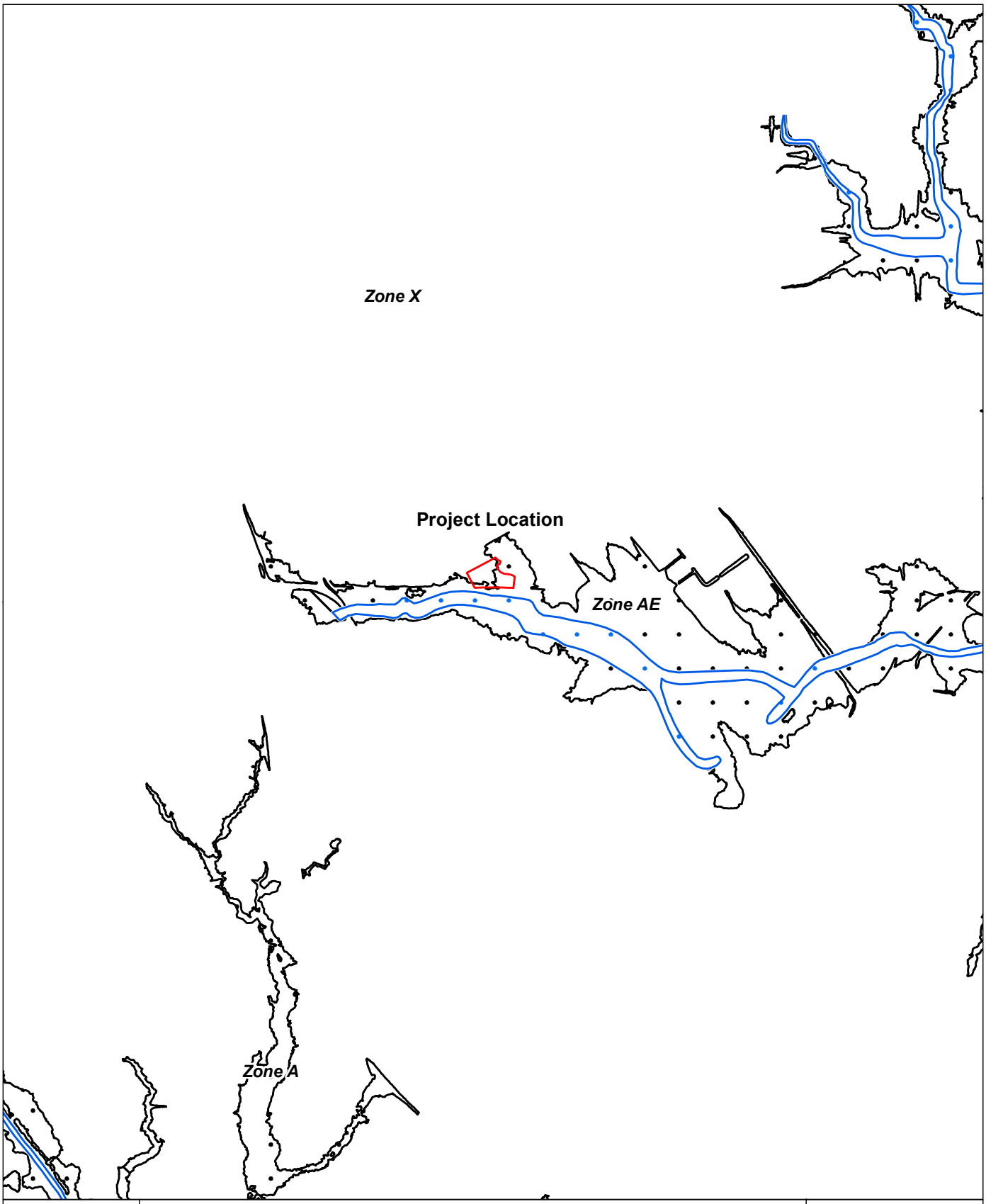

Figure 3
Floodplain Data of the Proposed ATCT 3a Construction Area at the Shreveport Regional Airport in Caddo Parish, LA

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0 1,000 2,000 4,000 6,000 8,000

KSA Engineers, Inc.
Project Number: 050096.00

Date: 03/01/2024

Base Map: Flood Insurance Rate Map
Panel No. 22017C0454H Caddo Parish, LA

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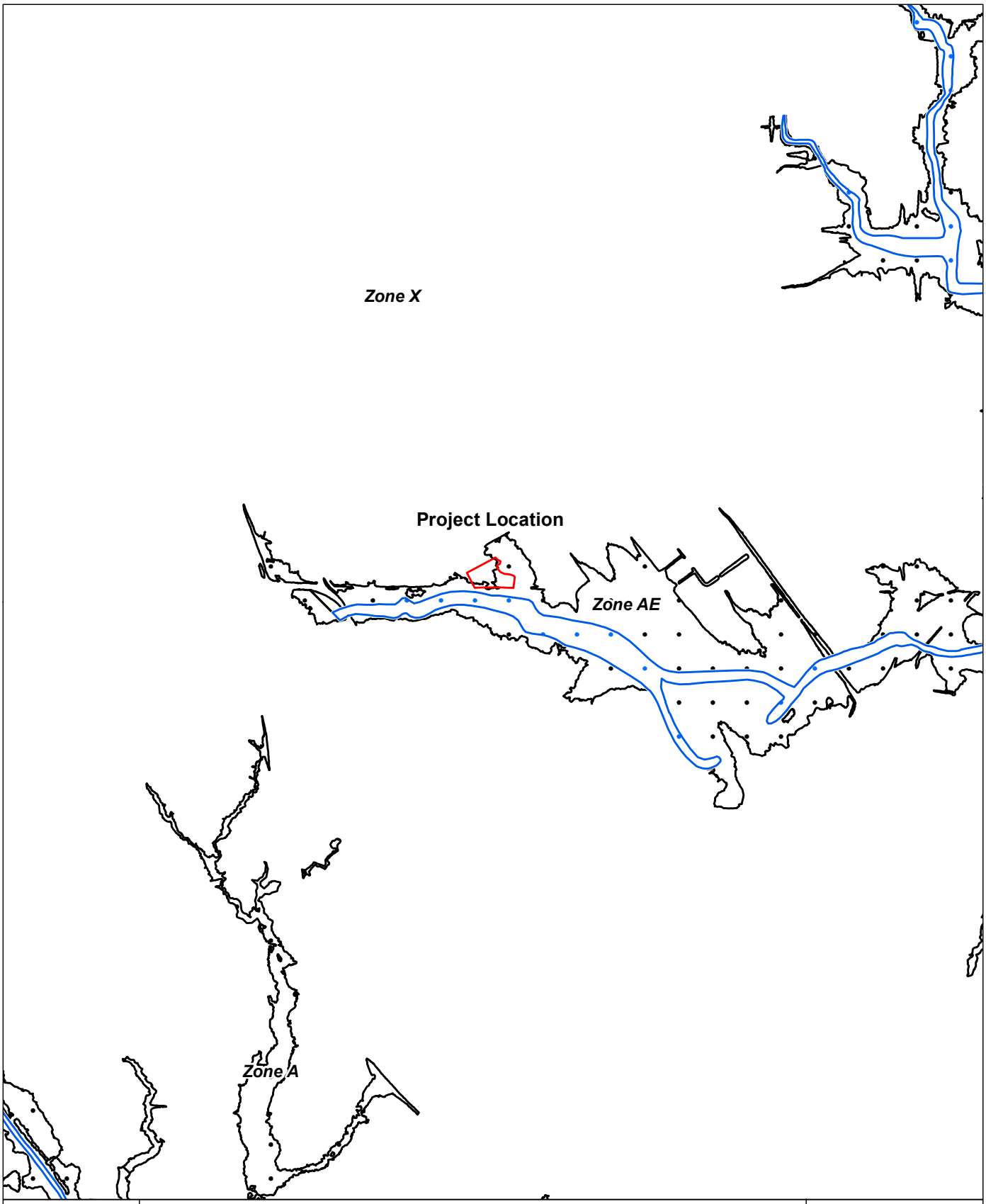

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SPHERE 3 ENVIRONMENTAL

1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

January 18, 2024

Department of Agriculture & Forestry
Office of Soil/Water Conservation
P.O. Box 3554
Baton Rouge, LA 70821

RE: Solicitation of Views for
Shreveport Regional Airport (SHV) Air Traffic Control Tower Relocation (ATCT)
Shreveport, LA

Dear Sir or Madam:

The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The purpose of this letter is to gain your input on any potential impacts associated with the relocation of the ATCT at SHV.

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New Orleans, LA 70130

Or via email at lisa@kutchins-groh.com

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Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
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May 16, 2024

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City of Shreveport Engineering Department
505 Travis Street, Suite 300
Shreveport, LA 71101
Sent via email: david.smith@shreveportla.gov

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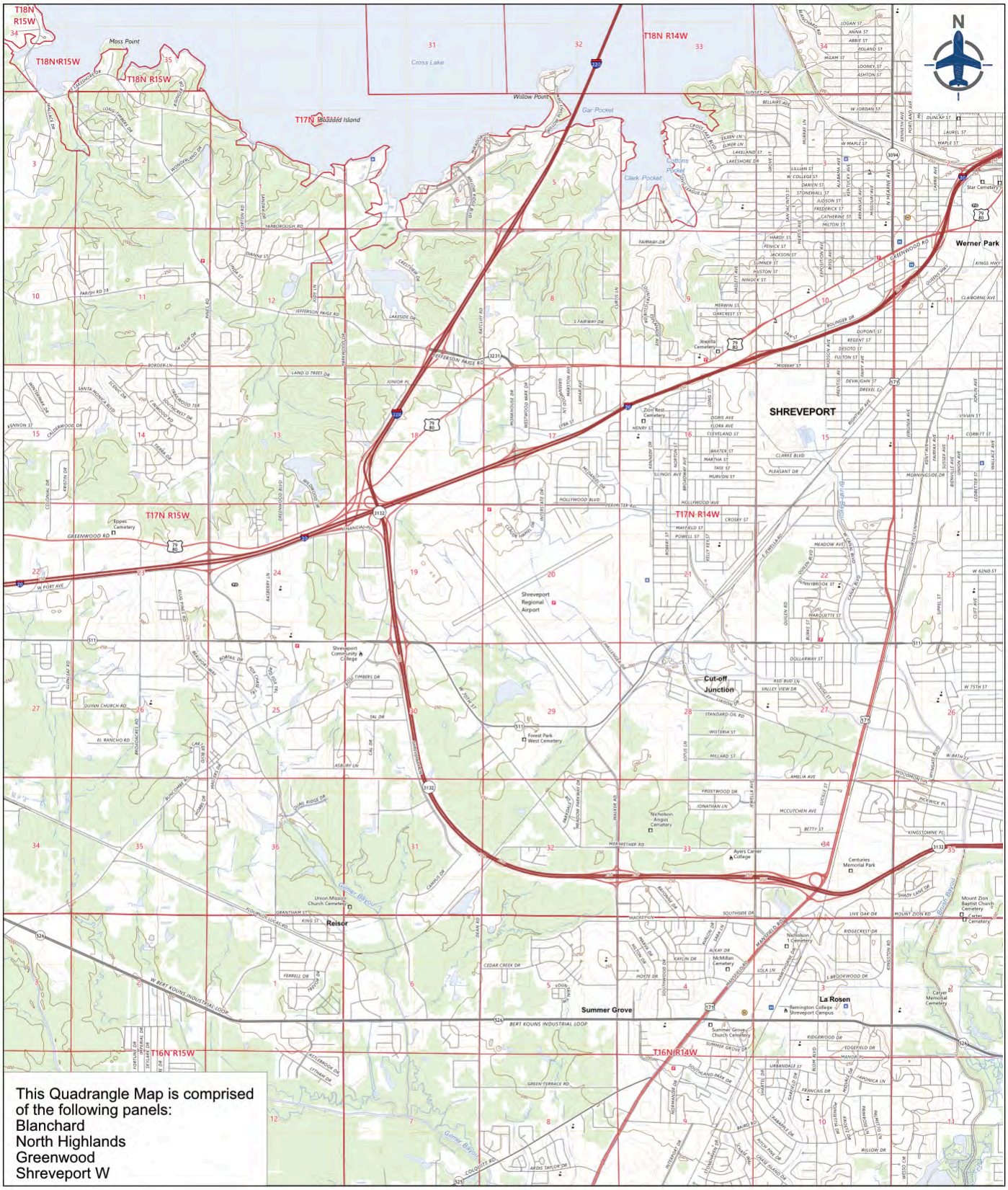
JANUARY 2024



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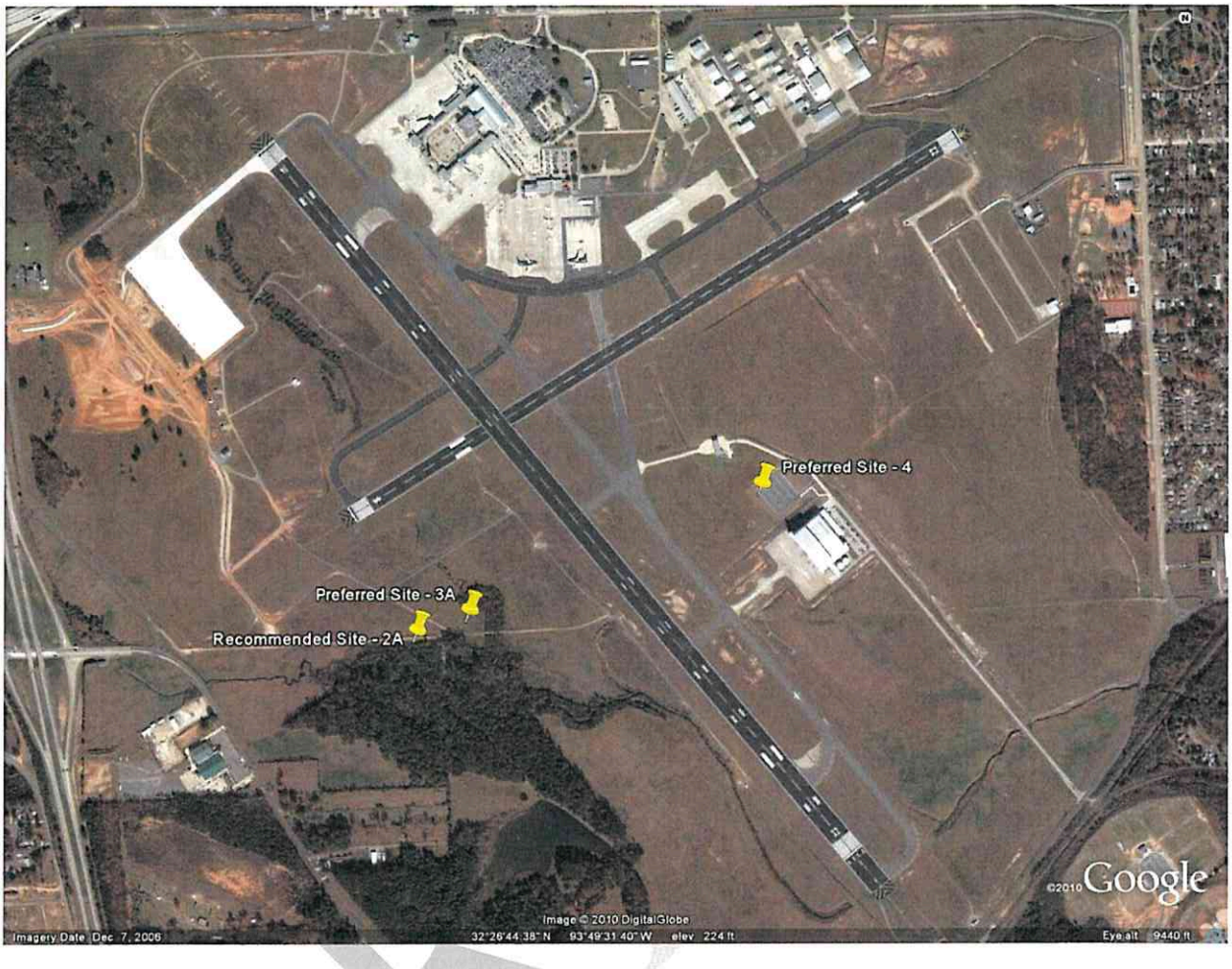
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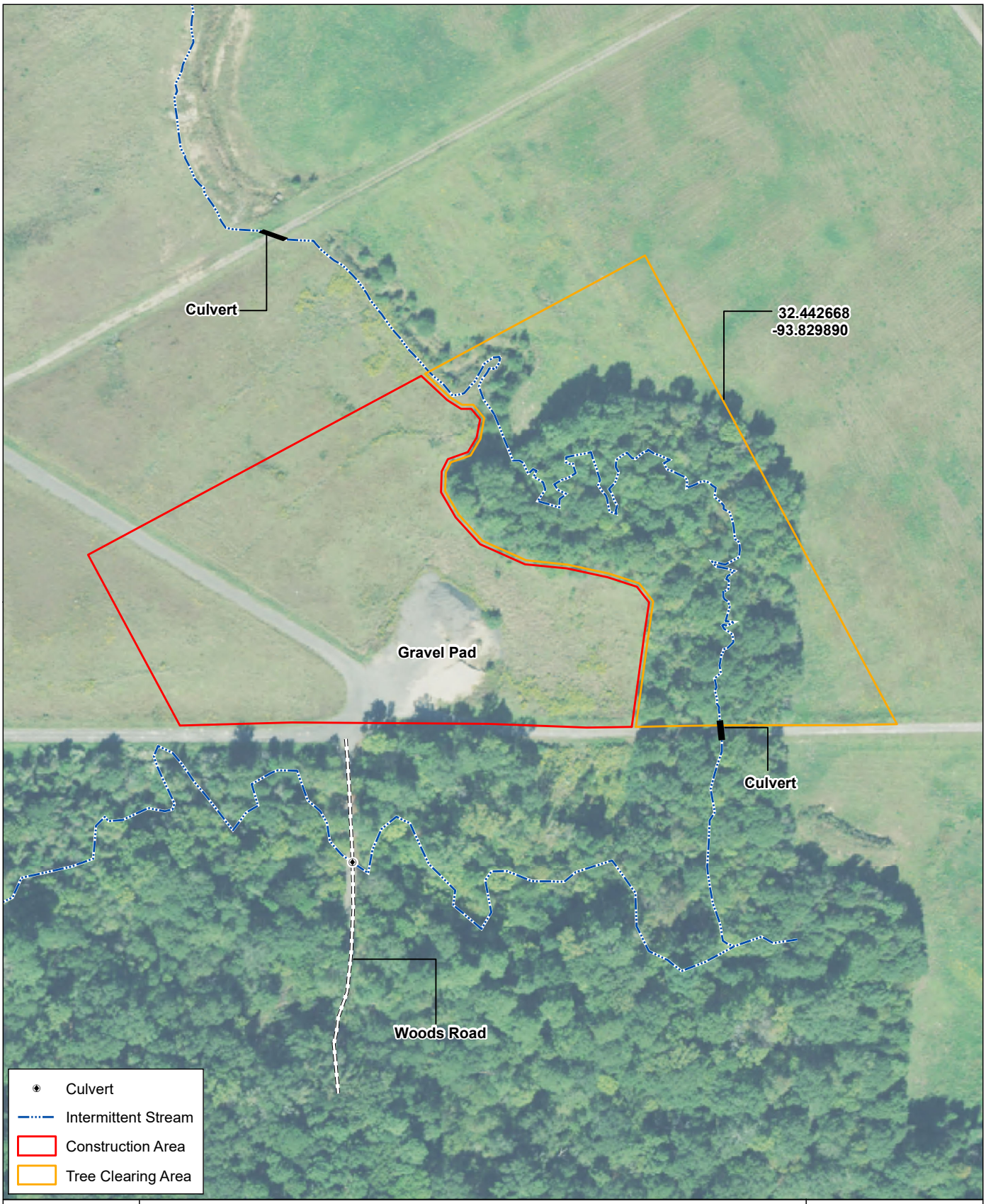

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N
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0 50 100 200 300 400 500 600 700 Feet

KSA Engineers, Inc.
Project Number: 050096.00

Date: 03/01/2024

Base Map: NRCS Geospatial Data Gateway
2021 NAIP Aerial Imagery (Caddo Parish, LA)

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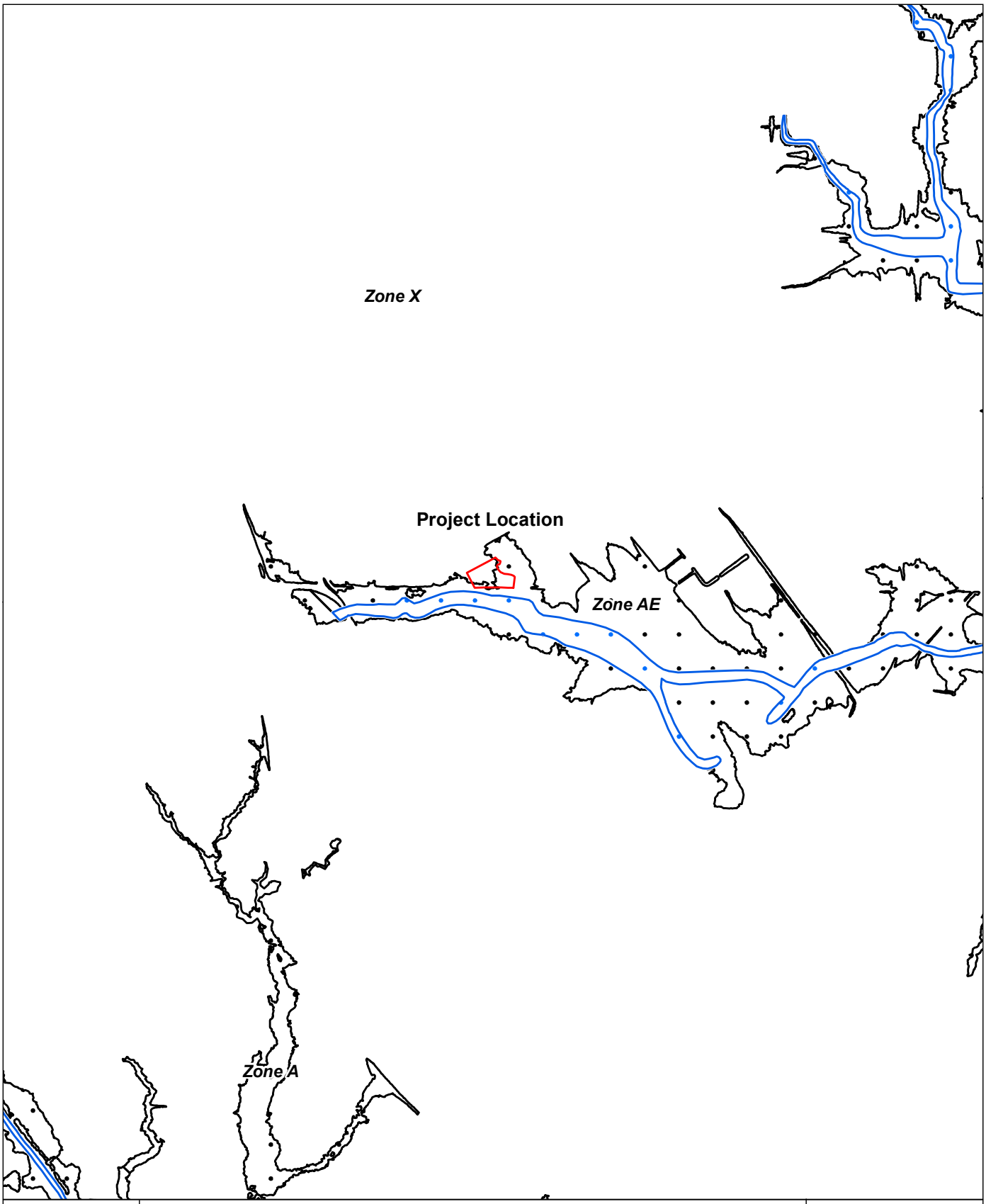

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KSA Engineers, Inc.
Project Number: 050096.00

Date: 03/01/2024

Base Map: Flood Insurance Rate Map
Panel No. 22017C0454H Caddo Parish, LA

SPHERE 3 ENVIRONMENTAL

1501 Bill Owens Parkway
Longview, TX 75604
Phone: (903) 297-4673
www.sphere3env.com

LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
MIKE STRAIN DVM
COMMISSIONER

May 28, 2024

Agricultural & Environmental Sciences
Suite 3000
(225) 925-3770
Fax: 925-3760

Agro-Consumer Services
Suite 5000
(225) 922-1341
Fax: 923-4877

Animal Health & Food Safety
Suite 4000
(225) 925-3962
Fax: 925-4103

Forestry
Suite 6000
(225) 925-4500
Fax: 922-1356

Management & Finance
Suite 1000
(225) 922-1255
Fax: 925-6012

Soil & Water Conservation
Suite 7000
(225) 922-1269

Kutchins & Groh, LLC
Attn: Lisa Lawson
400 Poydras Street, Suite 1380
New Orleans, LA 70130

RE: Shreveport Regional Airport, ATCT
Shreveport, LA

Dear Ms. Lawson,
I have no objection or further comment at this time regarding the above referenced project.

Sincerely,

Joey Breaux
Assistant Commissioner,
LDAF/Office of Soil & Water Conservation
Director, LA Soil & Water Conservation Commission
225.922.1269

JCB: CB

LOUISIANA DEPARTMENT OF AGRICULTURE & FORESTRY
MIKE STRAIN DVM
COMMISSIONER

June 3, 2024

Agricultural & Environmental Sciences
P.O. Box 3596
Baton Rouge,
LA 70821
(225) 925-3770
Fax: 925-3760

Agro-Consumer Services
P.O. Box 3098
Baton Rouge,
LA 70821
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Fax: 923-4877

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Baton Rouge,
LA 70821
(225) 925-3962
Fax: 925-4103

Forestry
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Baton Rouge,
LA 70821
(225) 925-4500
Fax: 922-1356

Management & Finance
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Baton Rouge,
LA 70821
(225) 922-1255
Fax: 925-6012

Soil & Water Conservation
P.O. Box 3554
Baton Rouge,
LA 70821
(225) 922-1269
Fax: 922-2577

Lisa Lawson
Kutchins & Groh, LLC
400 Poydras St.
New Orleans, LA 70130
504-330-7035
lisa@kutchins-groh.com

Ref: Shreveport Regional Airport (SHV) Air Traffic Control Tower (ATCT) Camp Beauregard Housing Construction & Rebuild

Dear Ms. Lawson,

The LDAF/Office of Soil & Water Conservation has reviewed the attached Solicitation of Views regarding the environmental assessments for the proposed air traffic control tower relocation in at the Shreveport Regional Airport in Caddo Parish, LA and has no objection to any of the three sites considered.

If this office may be of any further assistance, please do not hesitate to contact us.

Sincerely,

Joey Breaux
Assistant Commissioner,
LDAF/Office of Soil & Water Conservation
Director, LA Soil & Water Conservation Commission
225.922.1269

January 18, 2024

Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808

RE: Solicitation of Views for
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Shreveport, LA

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Or via email at lisa@kutchins-groh.com

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Sincerely,
KUTCHINS & GROH, LLC

Lisa Lawson, Project Manager

cc: Larry Blackwell, Shreveport Regional Airport

Enclosures: US Geologic Survey Quadrangle Map
Aerial view of the project area

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Phone: (337) 291-3100 Fax: (337) 291-3139

In Reply Refer To: January 30, 2024
Project Code: 2024-0042616
Project Name: Shreveport Regional Airport Air Traffic Control Tower Relocation

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and candidate species, as well as designated and proposed critical habitat that may occur within the boundary of your proposed project and may be affected by your proposed project. The Fish and Wildlife Service (Service) is providing this list under section 7 (c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Changes in this species list may occur due to new information from updated surveys, changes in species habitat, new listed species and other factors. Because of these possible changes, feel free to contact our office (337-291-3109) for more information or assistance regarding impacts to federally listed species. The Service recommends visiting the IPaC site or the Louisiana Ecological Services Field Office website (https://www.fws.gov/southeast/lafayette) at regular intervals during project planning and implementation for updated species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the habitats upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of Federal trust resources and to determine whether projects may affect Federally listed species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)).

Bald eagles have recovered and were removed from the List of Endangered and Threatened Species as of August 8, 2007. Although no longer listed, please be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668 et seq.).

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance", which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: https://www.fws.gov/migratorybirds/pdf/management/nationalbaldeaglenanagementguidelines.pdf

Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Onsite personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: https://www.fws.gov/southeast/our-services/eagle-technical-assistance/. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting any necessary consultation.

Activities that involve State-designated scenic streams and/or wetlands are regulated by the Louisiana Department of Wildlife and Fisheries and the U.S. Army Corps of Engineers, respectively. We, therefore, recommend that you contact those agencies to determine their interest in proposed projects in these areas.

Activities that would be located within a National Wildlife Refuge are regulated by the refuge staff. We, therefore, recommend that you contact them to determine their interest in proposed projects in these areas.

Additional information on Federal trust species in Louisiana can be obtained from the Louisiana Ecological Services website at: https://www.fws.gov/southeast/lafayette

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
(337) 291-3100

PROJECT SUMMARY

Project Code: 2024-0042616
Project Name: Shreveport Regional Airport Air Traffic Control Tower Relocation
Project Type: Airport - New Construction
Project Description: The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The Airport plans to relocate the ATCT to the southern portion of the airfield (please see attached Exhibit 2.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft. The FAA has mandated that the consultant team must prepare an Environmental Assessment, which includes coordination with the Fish & Wildlife Service, as well as other reviewing agencies. Site selection will be complete in summer of 2024. Construction is expected to begin in 2025 and continue for approximeately 12 months.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@32.445102250000005,-93.82296902465298,14z

Counties: Caddo County, Louisiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

BIRDS

NAME	STATUS
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

REPTILES

NAME	STATUS
Alligator Snapping Turtle *Macrochelys temminckii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

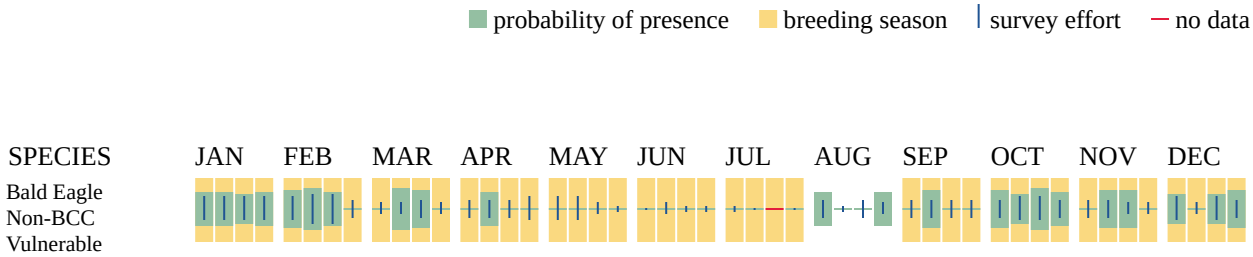
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bachman's Sparrow *Aimophila aestivalis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6177	Breeds May 1 to Sep 30
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch *Sitta pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25

NAME	BREEDING SEASON
Henslow's Sparrow *Ammodramus henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds elsewhere
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Sprague's Pipit *Anthus spragueii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8964	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental

Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

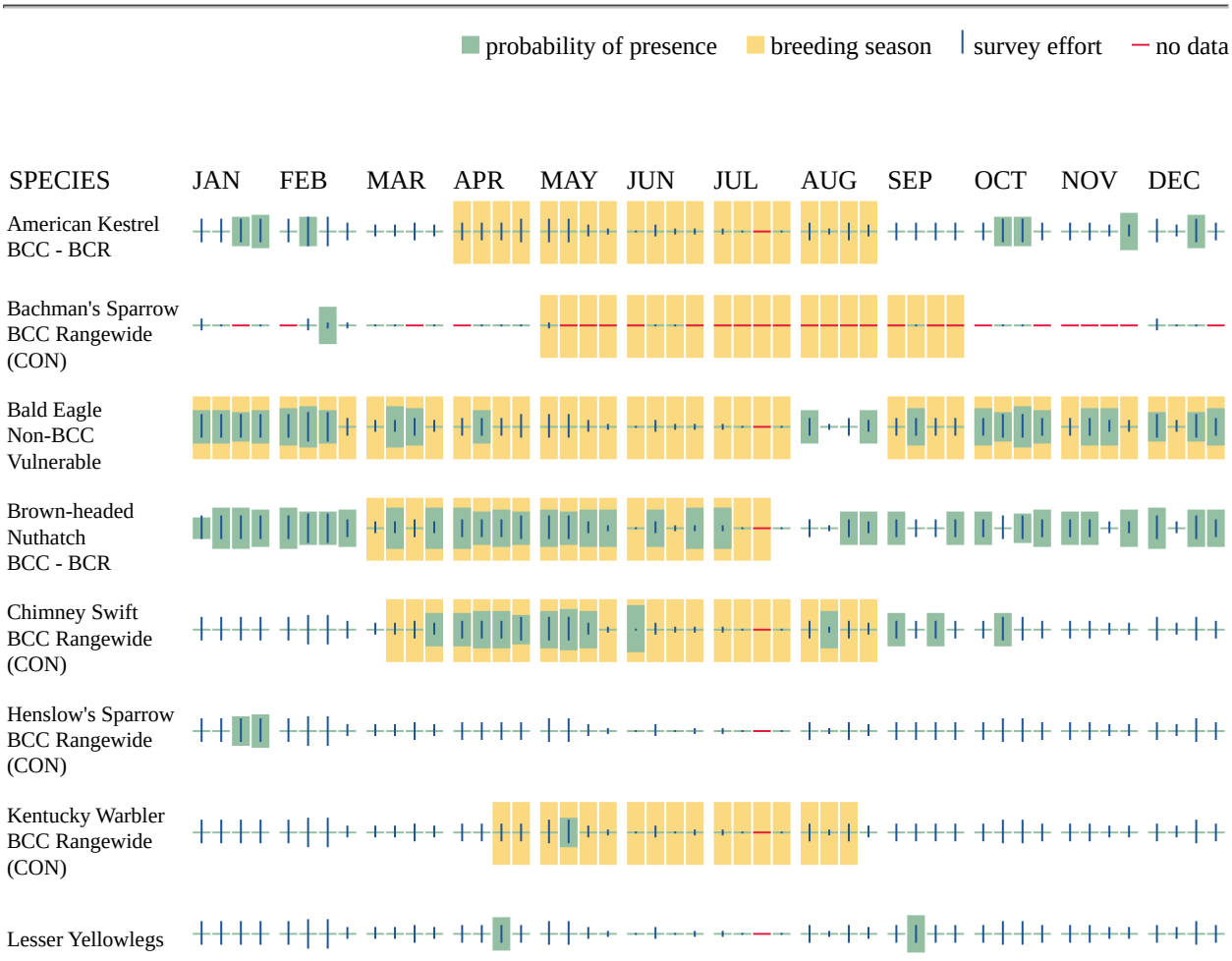
Probability of Presence (■)

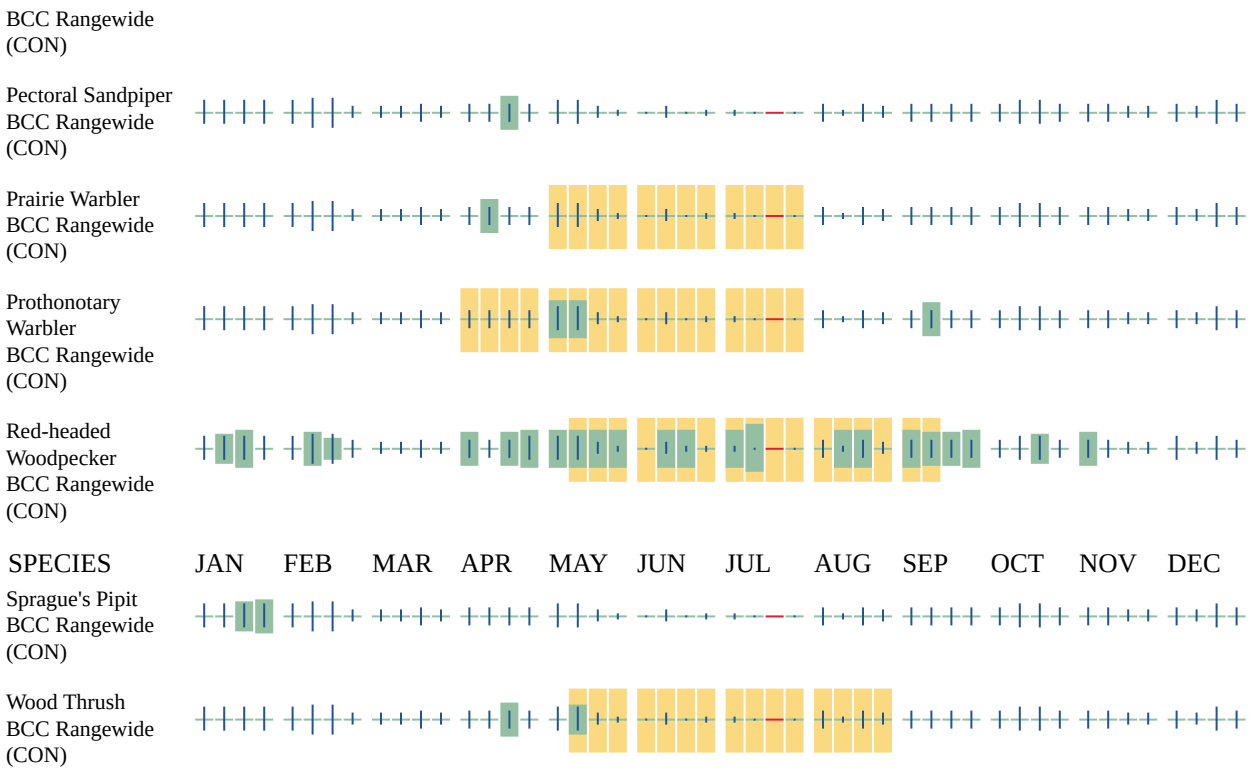
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency:	Kutchins & Groh, LLC
Name:	Lisa Lawson
Address:	400 Poydras Street
Address Line 2:	Suite 1380
City:	New Orleans
State:	LA
Zip:	70130
Email	lisa@kutchins-groh.com
Phone:	5043307035

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Phone: (337) 291-3100 Fax: (337) 291-3139

In Reply Refer To: January 30, 2024
Project code: 2024-0042616
Project Name: Shreveport Regional Airport Air Traffic Control Tower Relocation

Subject: Consistency letter for the project named 'Shreveport Regional Airport Air Traffic Control Tower Relocation' for specified threatened and endangered species that may occur in your proposed project location pursuant to the Louisiana Endangered Species Act project review and guidance for other federal trust resources determination key (Louisiana DKey).

Dear Lisa Lawson:

The U.S. Fish and Wildlife Service (Service) received on January 30, 2024 your effects determination(s) for the 'Shreveport Regional Airport Air Traffic Control Tower Relocation' (the Action) using the Louisiana DKey within the Information for Planning and Consultation (IPaC) system. The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on your answers, and the assistance in the Service's Louisiana DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Red-cockaded Woodpecker (*Picoides borealis*)	Endangered	No effect

Your agency has met consultation requirements for these species by informing the Service of the "no effect" determinations. No further consultation for this project is required for these species. This consistency letter confirms you may rely on effect determinations you reached by considering the Louisiana DKey to satisfy agency consultation requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

The Service recommends that your agency contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs,

additional consultation should take place before project changes are final or resources committed.

This IPaC-generated letter only applies to the species in the above table and **does not** apply to the following ESA-protected species that also may occur in the Action Area:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Northern Long-eared Bat *Myotis septentrionalis* Endangered

Please Note: If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) may be required. Please contact Ulgonda Kirkpatrick (phone: 321/972-9089, e-mail: ulgonda_kirkpatrick@fws.gov) with any questions regarding potential impacts to bald or golden eagles.

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Shreveport Regional Airport Air Traffic Control Tower Relocation

2. Description

The following description was provided for the project 'Shreveport Regional Airport Air Traffic Control Tower Relocation':

> The Shreveport Regional Airport is preparing to relocate the Airport Traffic Control Tower (ATCT) due to its aging infrastructure and to improve functionality of the facility. The Airport plans to relocate the ATCT to the southern portion of the airfield (please see attached Exhibit 2.) There are three sites, all on airport-owned property, that are under consideration for the new ATCT site. The design of the ATCT will be in accordance with FAA Guidelines, will include a Base Building measuring approximately 9,000 square feet, and will be equipped with a Terminal Radar Approach Control (TRACON) facility to guide approaching and departing aircraft. The FAA has mandated that the consultant team must prepare an Environmental Assessment, which includes coordination with the Fish & Wildlife Service, as well as other reviewing agencies. Site selection will be complete in summer of 2024. Construction is expected to begin in 2025 and continue for approximeately 12 months.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@32.445102250000005,-93.82296902465298,14z

QUALIFICATION INTERVIEW

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Is the action authorized, funded, or being carried out by the:

   d. Other

3. Please identify your agency or organization type:

   a. Federal agency

4. Have you determined that the project will have "no effect" on federally listed species? (If unsure select "No")

   No

5. [Hidden Semantic] Does the project intersect the red-cockaded woodpecker (RCW) AOI?

   Automatically answered
   Yes

6. Will the project involve removal of suitable RCW foraging habitat (pine or pine/hardwood stands in which 50 percent or more of the dominant trees are pines and the dominant pine trees are 30 years of age or older)?

   No

7. Will the project occur within suitable RCW nesting habitat (pine or pine/hardwood stands that contain pines 60 years of age or older)?

   No

8. [Hidden Semantic] Does the project intersect the pink mucket mussel AOI ?

   Automatically answered
   No

9. (Semantic) Does the project intersect the Louisiana black bear Range?

   Automatically answered
   No

IPAC USER CONTACT INFORMATION

Agency: Kutchins & Groh, LLC
Name: Lisa Lawson
Address: 400 Poydras Street
Address Line 2: Suite 1380
City: New Orleans
State: LA
Zip: 70130
Email lisa@kutchins-groh.com
Phone: 5043307035

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Aviation Administration

From:	Dave Butler
To:	lisa@kutchins-groh.com
Subject:	FW: Request for Solicitation of Views Response - Shreveport Regional Airport ATCT
Date:	Tuesday, June 4, 2024 11:48:07 AM
Attachments:	image005.png
Importance:	High

Lisa,

LDWF has reviewed the project as requested. Ecological Studies review our wetland impact and habitat concerns. The Wildlife Diversity Program reviews threatened and endangered species. Please find their comments below. Please let me know if you have any questions.

Ecological Studies:
There are no objections to the project.

Wildlife Diversity Program:
The Wildlife Diversity Program database indicates that the Southern Crawfish Frog (*Lithobates areolatus areolatus*) occurs within the project area**.** This frog species is critically imperiled (S1) in Louisiana due to extreme rarity. This species uses crawfish burrows to escape heat and drought and may be found in open, upland habitats containing vernal pools in which they breed. Threats to this species include degradation and loss of uplands, destruction of vernal pools, and, possibly, fragmentation of habitat leading to vehicular strikes during road crossings. Please contact Keri Lejeune at 337-735-8676 for more information.

No other impacts to rare, threatened or endangered species or critical habitats are anticipated from the proposed project. No state or federal parks, wildlife refuges, wildlife management areas or scenic rivers are known at the specified site or within ¼ mile of the proposed project.

The Wildlife Diversity Program (WDP) reports summarize the existing information known at the time of the request regarding the location in question. WDP reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. If at any time WDP tracked species are encountered within the project area, please contact our biologist at 225-763-3554.

Sincerely,

Dave Butler
Permits Coordinator
Louisiana Department of Wildlife and Fisheries
2000 Quail Drive
Baton Rouge, LA 70808
(504) 286-4173 New Orleans Office
(225) 763-3595 Baton Rouge Office

From: lisa@kutchins-groh.com <lisa@kutchins-groh.com>
Sent: Wednesday, May 22, 2024 1:04 PM
To: Robert Iles <tiles@wlf.la.gov>; Rene LeBreton <rlebreton@wlf.la.gov>
Subject: Request for Solicitation of Views Response - Shreveport Regional Airport ATCT

EXTERNAL EMAIL: Please do not click on links or attachments unless you know the content is safe.

Good morning. Kutchins & Groh is part of a team preparing an Environmental Assessment for the relocation of the Airport Traffic Control Tower at the Shreveport Regional Airport (SHV.) The Federal Aviation Administration has tasked us with reaching out to various agencies to solicit input regarding the proposed project. The attached letter provides additional information about the project, along with several exhibits that illustrate the location.

I would appreciate it if you would review the attached material and provide comments to me via email. Thank you. - Lisa

Lisa Lawson, RLA
Project Manager, Kutchins & Groh, LLC
(504) 330-7035 lisa@kutchins-groh.com
www.kutchins-groh.com
400 Poydras St., Suite 1380, New Orleans, LA 70130